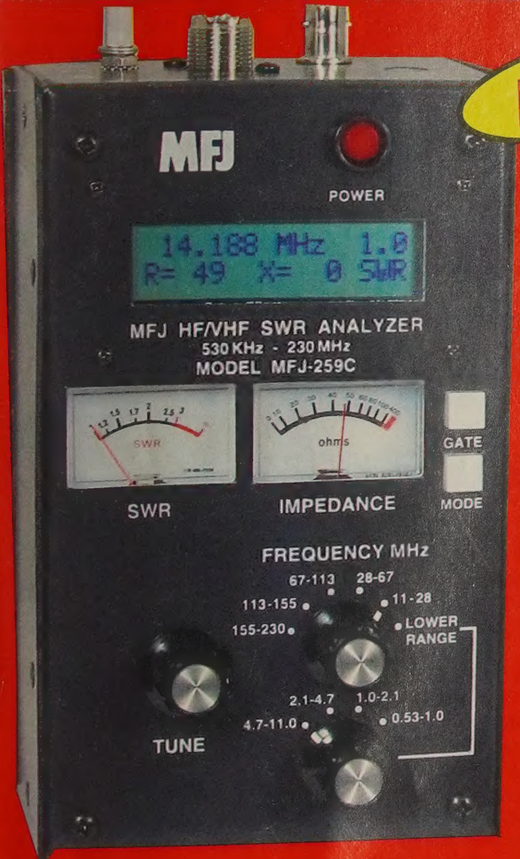
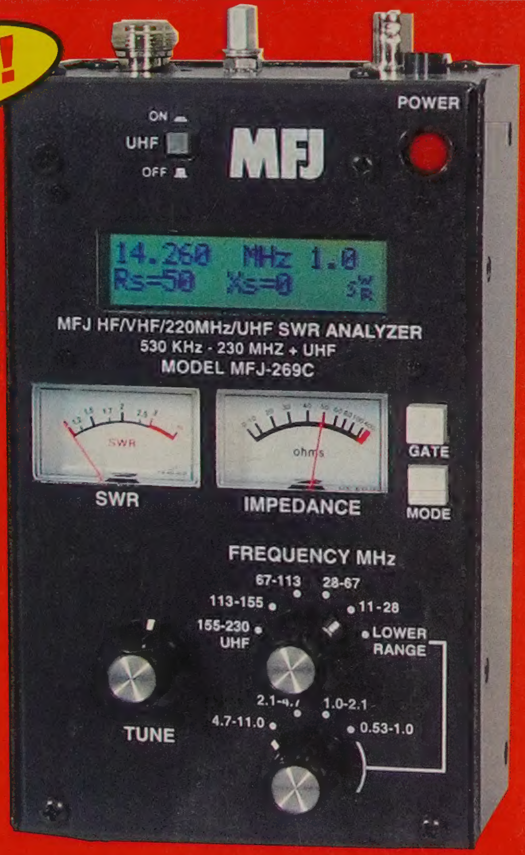
MFJ 2015 Ham Catalog

More hams use MFJ analyzers than all others in the world!

New!


MFJ
POWER
14.188 MHz 1.0
R= 49 X= 0 SWR
MFJ HF/VHF SWR ANALYZER
530 KHz - 230 MHz
MODEL MFJ-259C
SWR
IMPEDANCE
GATE
MODE
FREQUENCY MHz
TUNE
LOWER RANGE

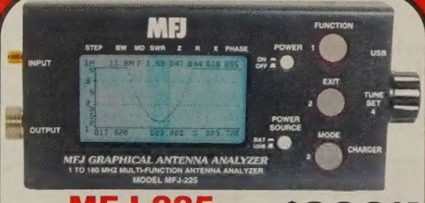

ON
UHF
OFF
MFJ
POWER
14.260 MHz 1.0
Rs=50 Xs=0
MFJ HF/VHF/220MHz/UHF SWR ANALYZER
530 KHz - 230 MHZ + UHF
MODEL MFJ-269C
SWR
IMPEDANCE
GATE
MODE
FREQUENCY MHz
TUNE
LOWER RANGE

MFJ-259C . . . $299^95
530 KHz to 230 MHz SWR Analyzer
See Page 14

MFJ-269C . . . $399^95
530 KHz-230 MHz, 415-470 MHz SWR Analyzer
See Page 15

MFJ
Vector Impedance Antenna Analyzer
0.5 TO 60 MHz
MFJ-223

MFJ-223
1-60 MHz Color TFT Analyzer
$349^95
See Page 19


MFJ
MFJ GRAPHICAL ANTENNA ANALYZER
1 TO 180 MHZ MULTI-FUNCTION ANTENNA ANALYZER
MODEL MFJ-225

MFJ-225 **$399^95**
1.5 to 179.9 MHz VNA Graphical Analyzer P17

MFJ-266C
1.5-65. 105-230, 300-490 MHz SWR Analyzer
$359^95
See Page 16

MFJ
MFJ ANTENNA ANALYZER
HF / VHF / 220MHz / UHF
MFJ-266C
21.148MHz E SWR
195+J 0:195 3.8

For your nearest dealer or to order, call 800-647-1800

MFJ ENTERPRISES, INC.
300 Industrial Park Rd.
Starkville, MS 39759
Phone: (662) 323-5869; 8-4:30 CST,
Monday-Friday. Fax: (662) 323-6551
E-mail: mfjcustserv@mfjenterprises.com

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Visit . . . www.mfjenterprises.com

MFJ ENTERPRISES, INC. STARKVILLE, MS
43 Anniversary
1972 2015

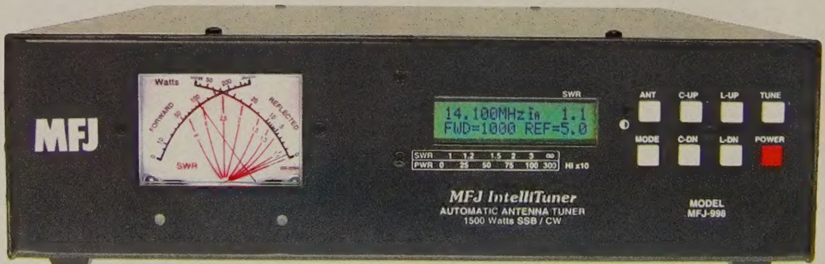
No Matter What™ Warranty
Every MFJ product is protected by MFJ's famous one year *No Matter What™* limited warranty. We will repair or replace your MFJ product *no matter what* (at our option) for one full year. *Prices and specifications subject to change without notice or obligation. MFJ will not be held responsible for printing errors.*

PROUDLY Made in the USA

MFJ 1500 Watt *Legal Limit IntelliTuner* ™

Full 1500 watts SSB/CW...Digital & Analog SWR/WattMeter ... All features of MFJ IntelliTuners™-- Ultra-fast, Safe Automatic Tuning ... Wide Tuning Range (12-1600 Ohms from 1.8 to 30 MHz) ... Radio Interfaces ... Built-in Antenna Switch for two coax/long wire ... Automatic Bypass protects your amplifier ... Field Upgradeable Software ... Very Compact!

MFJ-998
$699⁹⁵
Ship Code D



The MFJ-998 *Full Legal Limit* 1500 Watt *Intellituner™* takes you to the final level in automatic antenna tuners. With a capability of 1500 watts SSB and CW, coupled with automatic tuning, your high-power station can now operate essentially hands-free even when frequency and band changes are made.

Fast Automatic Tuning

The MFJ-998 instantly matches impedances from 12-1600 Ohms using MFJ's exclusive *IntelliTune™*, *AdaptiveSearch™* and *InstantRecall™* algorithms with over 20,000 *VirtualAntenna™* Memories. When you key your transmitter, MFJ's *InstantRecall™* checks to see if that frequency has been used before. If so, tuning is instantaneous. If not, MFJ's *IntelliTune™* algorithm (based on MFJ's efficient SWR Analyzer technology) measures the impedance, snaps the necessary components in place, and then fine-tunes the SWR. If the antenna impedance is outside the tuner's measurement range, MFJ's *Adaptive Search™* algorithm measures the frequency and determines only relevant component values -- which are then searched for fast tuning.

Safe Automatic Tuning and Amplifier Protection

The MFJ-998 includes MFJ's *Amplifier Bypass Control™* -- an MFJ exclusive feature! When used with a transceiver interface cable, tuning is safe and "stupid-proof"! When a tuning cycle is initiated, the MFJ-998 first bypasses any in-line amplifier. Next, the MFJ-998 initiates a low-power CW tuning carrier from your transceiver. When tuning is complete, the MFJ-998 reverts your transceiver to its prior power and mode, and re-enables the amplifier. This entire cycle typically takes less than a second! Finally, if the MFJ-998 cannot find a match better than a pre-set amplifier SWR trip-point, the amplifier stays bypassed to provide automatic SWR protection for your amplifier -- another outstanding *MFJ exclusive*!

Analog SWR/Wattmeter

A large super-bright LED lighted analog Cross-Needle SWR/Wattmeter displays selectable 300/60 watt or 3000/600 watt forward/reflected full-scale ranges. You can even select automatic power ranging -- the best power range is automatically selected for you.

Digital LCD SWR/Wattmeter

A two-line, 16-character *backlit* LCD meter displays SWR, forward/reflected power, frequency, antenna selected, an auto-ranging bargraph power indication, and much more. You can even read the final matching inductor and capacitor values should you want to build your own fixed matching network. Simple menus determine displayed information - *no complex button combinations to remember!*

MFJ VirtualAntenna™ Memory

MFJ new *VirtualAntenna™* Memory system gives you 4 antenna memory banks for *each* of 2 switchable antenna connectors. Select up to 4 antennas on each antenna connector. Each antenna has 2500 memories, 20,000 total. Has two coax connectors and a binding post for end-fed long wire antennas.

Download and Upgrade Remotely

Field upgradeable firmware via the serial port -- download and upgrade your MFJ-998 as new features are introduced!

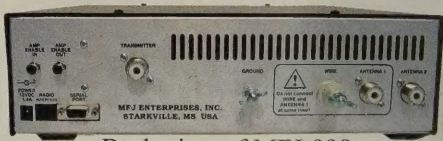
Plus Much More!

Built-in radio interface provides control of most amateur transceivers.

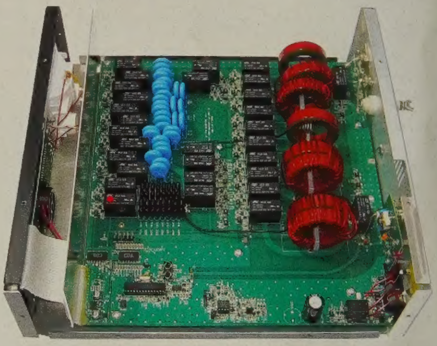
Automatic bypassing when excessive tuning power or power in excess of 1500 watts is applied.

Use balanced line antennas with external MFJ-912, $69.95, 1.5 kW 4:1 balun.

MFJ-998 is the *smallest full legal-limit automatic antenna tuner* in the world! 13Wx4Hx15D inches fits easily into your ham station. Weighs just 8 pounds -- great portability! Requires 12-15VDC at 1.4 amps maximum or 110 VAC with MFJ-1316, $21.95.



Back view of MFJ-998



An Inside view of MFJ-998

Pre-wired Rig Interface Cables for MFJ-929/998

These cables work with the following MFJ Automatic tuners: MFJ-929, MFJ-928, MFJ-925, and the MFJ-998.

MFJ-5114K, $19.95. Prewired Interface cable for Kenwood TS-590 and compatibles.

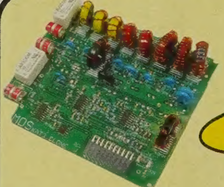
MFJ-5114I, $19.95. Prewired Rig Interface cable for Icom and compatibles.

MFJ-5114Y, $19.95. Prewired Rig Interface cable for Yaesu FT-450, FT-950, FT-847, FT-DX-3000 and other compatibles.

MFJ-5114Y3, $19.95. Prewired MFJ-998 to FT-1000MP, FT-9000 Yaesu rigs.

MFJ-5114Y4, $19.95. Prewired MFJ-998 to FT2000 and 5000 Yaesu rigs.

MFJ ATU PC Board for Elecraft K-3 Rig



New!

MFJ-905K3
$229⁹⁵
Ship Code A

MFJ-905K3 is a super clone of the KAT3 optional tuning board for the superb Elecraft K3 transceiver.

MFJ-905K3 is a direct plug-in PC board for the Elecraft K3 10 Watt or 100 Watt model. Covers 1.8 to 54 MHz.

This automatic antenna tuner PC board features an L-Match design and can match SWR up to 10:1. It handles 100 Watts.

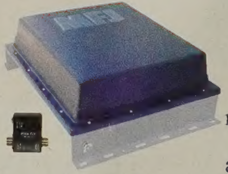
The ATU PC board has a second antenna port, and a sub-rx SMA port. All antenna ports are protected with gas discharge tubes.

Super sensitive relay allows excellent low current drain.

MFJ-905K3 is 4Wx3½Hx1¼D inches and easily slides right into the K3's tuning board slot. Weighs less than 1/2 pound.

Pick up this great accessory for your K3 today and save $$$!

MFJ 1.5 kW Remote Automatic Antenna Tuner



MFJ-998RT
$769⁹⁵
Ship code D

Tune your antenna *at the antenna*!

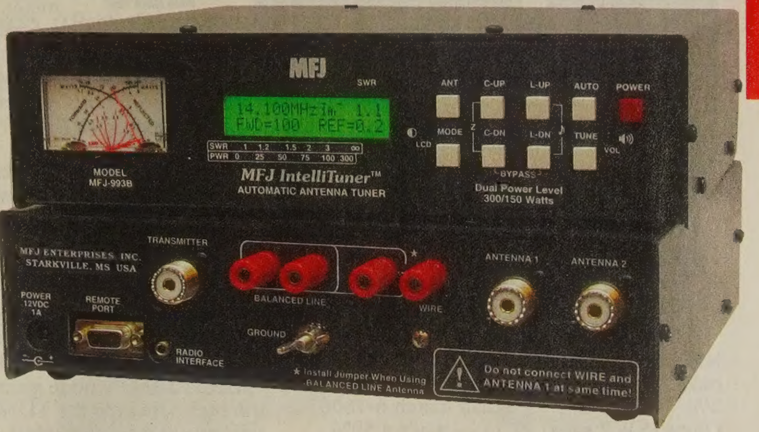
Operating your antenna tuner remotely greatly reduces losses and allows high efficiencies from long coax runs and high SWR. MFJ-998RT has a wide tuning range, 12-1600 Ohms from 1.8-30 MHz.

Weather protected ABS plastic housing. Has all of the features of the in-shack MFJ-998. ***See page 5 for complete details.***

MFJ *IntelliTuner*™ Automatic Tuner

Automatically tunes unbalanced/balanced antennas . . . Ultra fast . . . New 20,000 memories . . . Antenna Switch . . . Efficient L-network . . . Select 300 Watts (6-1600 Ohms) or 150 Watts (6-3200 Ohms) . . . 1.8-30 MHz . . . 4:1 current balun . . . LED Lighted Cross-Needle plus Digital SWR/Wattmeters. . . Audio SWR meter. . . Backlit LCD. . . Remote port . . . Rig interface. . .

MFJ-993B
$269.95
Ship Code C


MFJ
SWR
14.100MHz Im 1.1
FWD=100 REF=0.2
ANT
C-UP
L-UP
AUTO
POWER
MODE
C-DN
L-DN
TUNE
LCD
VOL
BYPASS
MODEL MFJ-993B
MFJ IntelliTuner™
AUTOMATIC ANTENNA TUNER
Dual Power Level 300/150 Watts
TRANSMITTER
MFJ ENTERPRISES, INC. STARKVILLE, MS USA
POWER 12VDC 1A
REMOTE PORT
RADIO INTERFACE
BALANCED LINE
GROUND
WIRE
ANTENNA 1
ANTENNA 2
★ Install Jumper When Using BALANCED LINE Antenna
Do not connect WIRE and ANTENNA 1 at same time!

World's First dual power level 300/150 Watts SSB/CW Tuner --

Select 300 Watt SSB/CW power level and match 6-1600 Ohm antennas ***Or . . .*** select **150 Watt** SSB/CW power level and match *extra wide-range* 6-3200 Ohms!

The MFJ-993B *IntelliTuner*™ lets you tune any antenna *automatically* balanced or unbalanced -- *ultra fast*.

It's a comprehensive automatic *antenna tuning center* complete with SWR/Wattmeter, antenna switch for two antennas and 4:1 current balun for balanced lines.

MFJs exclusive *IntelliTuner*™, *Adaptive Search*™ and *InstantRecall*™ algorithms give you *ultra fast* automatic tuning with over 20,000 *VirtualAntenna*™ Memories.

You get a highly efficient L-network, 6-1600 ohm matching at 300 Watts SSB/CW or *extra-wide* 6-3200 Ohm matching at 150 Watts SSB/CW, 1.8-30 MHz coverage, Cross-Needle *and* digital meters, audio SWR meter, *backlit* LCD, remote control port, radio interface, heavy-duty 16 amp/1000V relays.

It learns while you're having fun

As you're ragchewing, contesting or DXing, *your MFJ-993B is learning!*

When you transmit, the MFJ-993B automatically tunes for minimum SWR and remembers your frequency and tuner settings. The next time you operate on that frequency and antenna, these tuner settings are instantly restored and *you're ready to operate in milliseconds!*

MFJ new *VirtualAntenna*™ Memory system gives you 4 antenna memory banks for *each* of 2 antenna connectors. Select up to 4 antennas on each antenna connector. Each antenna has 2500 memories, 20,000 total.

Intelligent ultra fast tuning

MFJs *InstantRecall*™ first checks its memory to see if you have operated this frequency before. If so, tuning is instantaneous and you're ready to operate.

If not, MFJs *IntelliTuner*™ algorithm - - based on MFJ s famous SWR Analyzer technology - - kicks in. It *measures* the complex impedance of your antenna. Next, it *calculates* the components it needs and instantly *snaps* them in. Then, it fine tunes to minimize SWR -- you're ready to operate. It's all done in a *fraction* of a second.

When the impedance is within its measurement range, the MFJ-993B is the *fastest automatic antenna tuner in the world.*

If it can't accurately determine impedance, MFJ's *AdaptiveSearch*™ algorithm goes into action. Frequency is measured and relevant components values are determined. Only those values are searched for ultra-fast tuning.

For even faster searches, you can set the target SWR to 2 (settable 1.0-2.0).

You can manually tune when you can't transmit (for listening out of ham bands).

LED Lighted Cross Needle plus Digital SWR/Wattmeters

LED lighted Cross-Needle and *digital* meters let you accurately read SWR, forward and reflected power at a glance.

An *audio* SWR meter lets you *hear* the tuned SWR when you can't see/read meters.

Turn on a highly visible, instant response SWR LCD bargraph when you need it.

Backlit LCD Display

An easy-to-read *backlit* LCD displays SWR, forward/reflected power, frequency, antenna 1 or 2, L/C tuner values, on/off indicators and other information.

The MFJ-993B is a compact 10Wx2¾ Hx9D inches. Use 12 –15 VDC/1 amp or 110 VAC with **MFJ-1316, $21.95**.

Tune any Antenna

You can tune any antenna — dipoles, verticals, beams, phased arrays, inverted vees, quads, random wires, mobile antennas, compact limited space antennas.

A 4:1 true current balun lets you tune any balanced antenna - - horizontal loops, vertical loops, multi-band doublets, quads, folded dipoles, Zepps.

Remote Control

MFJ IntelliTuner™
REMOTE CONTROL
MFJ-993RC
ANT
C-UP
L-UP
AUTO
TUNING
SWR
C-DN
L-DN
TUNE
BYPASS

Plug in the **MFJ-993RC, $39.95**, remote control and use your tuner elsewhere remotely.

MFJ-993B Interface Pre-wired Cables

Allows automatic tuning of your MFJ-991B/993B/994B *IntelliTuner*™ through your radio via these interface cables.

MFJ-5124I, $19.95, *ICOM*. Supports IC-706, 707, 718, 725, 728, 736, 746, 756, 765, 775, others that support AH-3 or AH-4.

MFJ-5124A, $19.95, *ALINCO*. Supports DX-70, DX-77 and others.

MFJ-5124K, $59.95, *KENWOOD*. Supports TS-50S, 450S, 570S, 690S, 850S, 870S, 2000 and others that support AT-300.

MFJ-5124Y, $59.95, *YAESU*. Supports FT-100D, FT-450, FT-857D, FT-897, FT-950, FT-DX-3000 and other compatibles.

MFJ-5124Y2, $59.95, *YAESU* FT-847.

MFJ-5124Y3, $19.95, Supports YAESU FT-1000MP and compatibles.

MFJ-5124Y4, $19.95, Supports Yaesu FT2000 and compatibles.

600 Watt MFJ Automatic Tuner

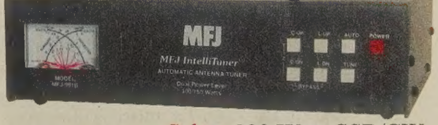
MFJ
C-UP
L-UP
AUTO
POWER
C-DN
L-DN
TUNE
BYPASS
MFJ IntelliTuner™
AUTOMATIC ANTENNA TUNER
600 Watts PEP SSB / 300 Watts CW
MODEL MFJ-994B

MFJ-994B
$359.95
Ship Code C

MFJ-994B, *600 Watt Intelli-Tuner*™ automatic antenna tuner with 10,000 *VirtualAntenna*™ Memories. Like MFJ-993B but handles 600 Watts SSB/CW, matches 12-800 Ohms. Does not have digital SWR/Watt-meter/LCD display, audio SWR meter/audio feedback, antenna switch or 4:1 current balun. Tuning must be done at low transceiver power with amplifier bypassed.

Dual 300/150 Watt Automatic Tuner

World's First dual power level Tuner --


MFJ
MFJ IntelliTuner
AUTOMATIC ANTENNA TUNER
Dual Power Level 300/150 Watts
MODEL MFJ-991B
C-UP
L-UP
AUTO
POWER
C-DN
L-DN
TUNE
BYPASS

MFJ-991B
$229.95
Ship Code C

Select 300 Watt SSB/CW and match 6-1600 Ohm antennas ***Or*** select **150 Watt** SSB/CW and match *extra wide-range* 6-3200 Ohms.

10,000 *VirtualAntenna*™ Memories. Like MFJ-993B, less digital SWR/Wattmeter/LCD display, audio SWR meter/audio feedback, antenna switch or 4:1 current balun.

MFJ Compact 200 Watt *IntelliTuners*™

Automatically tunes any unbalanced antenna . . . Ultra fast . . . 20,000 VirtualAntenna™ Memories . . . Antenna Switch . . . Efficient L-network . . . Matches 6-1600 Ohms at 200 Watts . . . 1.8-30 MHz . . . Digital SWR/Wattmeter . . . Audio SWR meter . . . Radio interface . . .

The MFJ-929 *IntelliTuner-Compact*™ lets you *automatically* tune any coax fed or random wire antenna 1.8-30 MHz at full 200 Watts SSB/CW. It can match 6-1600 Ohms (SWR up to 32:1) - - that's a 50% wider matching range at a higher power level than lesser competing products.

You get a *digital* SWR/Wattmeter with backlit LCD, antenna switch for 2 antennas, built-in radio interface and built-in internal BiasTee for remote tuner operation.

MFJ's exclusive *IntelliTune*™, *Adaptive Search*™ and *InstantRecall*™ algorithms give you ultra-fast automatic tuning with over 20,000 *VirtualAntenna*™ Memories.

MFJ VirtualAntenna™ Memory

MFJ new *VirtualAntenna*™ Memory system gives you 4 antenna memory banks for *each* of 2 antenna connectors. You can select up to 4 antennas on each antenna connector. Each antenna has 2500 memories.

4 Times the Solutions!

MFJ-929 gives you 256 values each of capacitance and inductances for 131,072 matching solutions. That's *4 times* the 32,768 matching solutions of competing products with only 128 L/C values each!

Highly intelligent, ultra-fast tuning!

Don't be fooled by competing products claiming fast search times -- if you have a *quarter* of the matching solutions, of course, it takes less time to finish but it's *not* faster.

MFJ's faster speed comes from advanced technology and software algorithms *not* from fewer matching solutions.

MFJ's *IntelliTuner-Compact*™ actually *measures* complex impedance -- *R* and *X* -- of your antenna, computes the L-network values needed and snaps in those components to give you an *instant* match.

If the load is out of measurement range, *AdaptiveSearch*™ determines the *smaller* subset from all solutions that can match a safe load -- and then searches *only* that subset -- others search through far more solutions.

Digital LCD SWR/Wattmeter

An easy-to-read, two-line, 16-character backlit LCD displays SWR, peak or average forward/reflected power, frequency, antenna 1 or 2, L/C tuner values, on/off indicators and other info. They are selected from easy-to-understand menus -- *not* complex combinations of buttons you can't remember.

A fast-response, high-resolution bargraph gives you an auto-ranging 20/200 Watt power meter. You get 60 segments each for forward and reflected power and 36 segments for SWR -- *try that with an 8 segment bargraph that makes you change power ranges and doesn't even give you reflected power!*

MFJ-929
$229.95
Ship Code B

You can read inductance and capacitance *directly* in uH and pF. This turns you into an expert *L-network designer!* Match your load, read the resulting L/C values, then use them to build your fixed L-network.

Or, knowing the L/C values you can determine R and X of the load impedance.

Plus Much More!

StickyTune™ mode gives you one-hand tuning by locking the TUNE button -- just transmit to tune regardless of SWR.

Has audio SWR meter and audio feed back. Competing products don't.

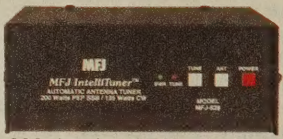
Built-in 50 MHz frequency counter.

Its built-in radio interface lets you use a simple wire cable to compatible rigs. Others require a cable with expensive electronics.

Binding post for random wire. Self-test.

Highly efficient L-network. 10 Amp/1000V relays, RF duty silver mica capacitors. 6½ Wx2⅞Hx8⅜D in. 2.4 lbs. 12-15 VDC/1Amp or 110 VAC with MFJ-1316, $21.95.

MFJ Basic *IntelliTuner*™



MFJ-928
$199.95
Ship Code A

Like MFJ-929, but less LCD display, has manual tune buttons. Unit is the same size as the MFJ-929.

MFJ Weather Protected Remote *IntelliTuner*™

MFJ-927
$259.95
Ship Code C

MFJ-927, $259.95. Weather protected *remote* auto tuner for coax/wire ant., includes MFJ-4116 Power Injector. Most MFJ-929 features, weather protected, no LCD/buttons.

MFJ-4116, $24.95. Power Injector for remote MFJ-929/928 use. Sends DC/RF down coax.

Pre-wired Rig Interface Cables for MFJ-929 series

These cables work with the following MFJ Automatic tuners: MFJ-929, MFJ-928, MFJ-925, and the MFJ-998.

MFJ-5114K, $19.95. Prewired Rig Interface cable for Kenwood TS-590 and other compatibles.

MFJ-5114I, $19.95. Prewired Rig Interface cable for Icom and other compatibles.

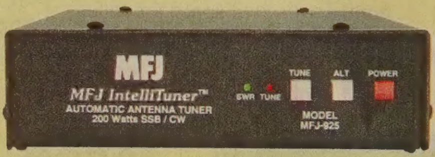
MFJ-5114Y, $19.95. Prewired Rig Interface cable for Yaesu FT-950, FT-450, FT-847 and compatibles..

MFJ-5114Y3, $19.95. Prewired MFJ-929 to FT-1000MP, FT-9000 Yaesu rigs.

MFJ-5114Y4, $19.95. Prewired MFJ-929 to FT2000 and other Yaesu rigs.

Super-Compact MightyMite™ IntelliTuner™

Just 6½Wx2⅛Hx8¼D inches and lightweight 2.5 lbs gives you a super automatic tuner in a tiny package . . . has many features of its big brothers, but still fits virtually anywhere



MFJ-925
$179.95
Ship Code A

MFJ-925, $179.95.

MFJ-925 has been designed for today's compact base, portable and mobile stations. Many radios these days are tinier than the average accessory.

At just 6½Wx2⅛Hx8¼D inches, the MFJ-925 *IntelliTuner*™ specifically complements today's compact HF transceivers, such as the Icom IC-706MKIIG, IC-7000, Yaesu FT-857D, Alinco DX-70TH and Kenwood TS-50S.

It can also be used as a stand-alone automatic antenna tuner for any transceiver that has an output power of 2-200 watts SSB/CW from 1.8-30 MHz with antenna impedances from 6-1600 ohms.

With more than 10,000 non-volatile *VirtualAntenna*™ Memories, and MFJ's exclusive *InstantRecall*™, *IntelliTune*™ and *AdaptiveSearch*™ algorithms, the MFJ-925 gives you fast automatic tuning of unbalanced or single-wire antennas.

Dynamite comes in small packages!

Use an optional MFJ-911H, $34.95 (See page 66 for more details), 1:1/4:1 external balun for balanced feedlines.

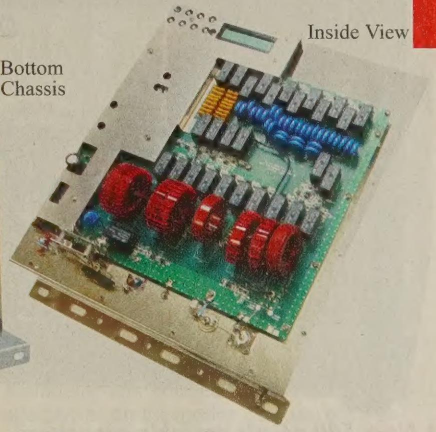
MFJ 1500 Watt *Remote* Auto Tuner

Place this MFJ-998RT remote tuner at your antenna to match high SWR antennas/long coaxes -- greatly reduce losses for high efficiency

. . . Match 12-1600 Ohms, 1.5 kW, SSB/CW, 1.8-30 MHz . . . Match coax/wire antennas . . . Weather-sealed . . . Remotely powered thru coax . . . Amplifier, radio, tuner protection . . . Output static/lightning protection . . . StickyTune™ always tunes when power folds back . . . DC power jack . . .

MFJ-998RT
$769.95
Ship Code D

Bottom Chassis



Inside View

Tune your antenna AT your antenna!

Get greatly reduced losses and high efficiencies with long coax runs and high SWR antennas with this new MFJ-998RT 1.5 kW Remote Antenna Tuner.

Weather-Sealed

A tough, durable weather-sealed ABS cabinet with over-lapping lips, sealing gasket and stainless steel chassis protects the MFJ-998RT from all kinds of weather.

No Power Cable Needed!

No power cable needed -- remotely powered through coax. Includes MFJ-4117 Bias-Tee with on/off switch for station end of coax. Has 12 VDC jack for power cable, if desired.

Fully Protected

MFJ exclusive algorithms protect your tuner, radio and RF power amplifier from damage.

Automatic inductor and capacitor limiting prevents tuning extreme loads which can destroy your tuner.

Your tuner will not tune if more than 75 Watts with SWR greater than 3:1 is applied or if more than 125 Watts is applied.

Tuner output is static electricity and lightning induced surge protected.

MFJ exclusive StickyTune™

Very high SWR can fold back transmitter power and *prevent tuning* caused by extreme differences in loads (example: changing bands and other conditions).

But MFJ exclusive *StickyTune™ always* tunes with a simple on/off power cycle and re-transmit.

Tunes Coax fed and Wire Antennas

Tunes both coax fed and wire antennas. Has *ceramic* feed-through insulator for wire antennas. 2 kV *Teflon®* insulated SO-239 -- prevents arcing from high SWR.

High Power, Highly Efficient

A highly efficient L-network matches 6-1600 Ohms at *full* 1500 Watts legal limit SSB/CW 1.8 to 30 MHz with Hi-Q Ls, Cs.

MFJ-998RT Learns as you Operate

As you operate, the MFJ-998RT automatically tunes for minimum SWR and remembers your frequency and tuner settings. The next time you operate on that frequency and antenna, its tuner solution is restored in milliseconds and you're ready to operate!

Highly Intelligent, Ultra-fast Tuning

MFJ *InstantRecall™* recalls stored tuning solutions from 10,000 memories. For new frequencies, MFJ *Intelli-Tune™* measures your antenna impedance and instantly determines the correct matching components. If antenna impedances cannot be measured, MFJ *AdaptiveSearch™* searches *only* the relevant components that can match your antenna giving you ultra-fast tuning.

Field upgradeable firmware. Requires 12-15 VDC at 1.4 Amps maximum or 110 VAC with optional MFJ-1316, $21.95. Weighs 9.5 lbs. 13¼Wx6¾Hx17½D inches.

600W *Remote IntelliTuner™*

MFJ-994BRT
$399.95
Ship Code C

MFJ-994BRT -- It's perfect for 600 Watt SSB/CW amplifiers like Ameritron's AL-811/ALS-600/ALS-500M.

Matches 12-800 Ohms. Coax/wire antennas, 1.8-30 MHz.

Fully *weather-sealed* for outdoor use. Remotely powered through coax.

Tough, durable, *built-to-last* cabinet, 9¼Wx3Hx 14¼D inches, 4 lbs.

Includes MFJ-4117 *BiasTee* Power Injector.

300W *Remote IntelliTuner™*

MFJ-993BRT
$299.95
Ship Code C

MFJ-993BRT handles 300 Watts SSB/ CW.

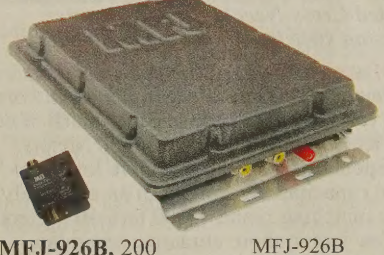
Matches an *extra-wide* 6-1600 Ohm impedances. Use coax fed or wire antennas from 1.8-30 MHz.

Fully *weather-sealed* for remote outdoor or marine use.

Remotely powered through coax. Tough, durable, *built-to-last* cabinet measures 9¼Wx3Hx14¼D inches.

Weighs just 4 pounds. Includes MFJ-4117 BiasTee Power Injector.

200W *Remote IntelliTuner™*



MFJ-926B
$279.95
Ship Code C

MFJ-926B, 200 Watts SSB/CW, matches 6-1600 Ohms, Coax/wire antennas, 1.8-30 MHz. Includes BiasTee.

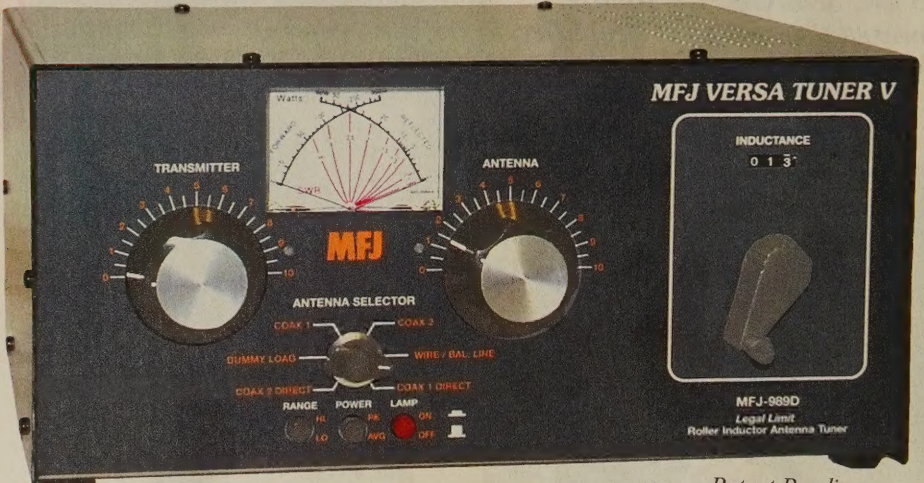
200W *Remote Econo Tuner™*

MFJ-927
$259.95

MFJ-927, 200 Watts SSB/CW, 6-1600 Ohms, Coax/Wire antennas, 1.8-30 MHz. Weather-sealed, BiasTee. 7½Wx5¼Hx8½D in.

MFJ-989D 1500 Watt *legal limit* Antenna Tuner

New and improved! *World's most popular legal limit antenna tuner just got better -- with no increase in price! You get better efficiency, lower losses, and a new true peak-reading meter. Easily handles full 1500 Watts SSB/CW, 1.8 to 30 MHz including MARS/WARC bands.*



Patent Pending

MFJ-989D
$409.95
Ship Code D

- ***New** 500 pF air variable capacitors*
- ***New** AirCore™ Roller Inductor with **new** fast-tune Crank Knob*
- ***New** TrueActive™ Peak-Reading Cross-Needle SWR/Wattmeter with **new** Super-bright LED*
- ***New** High-Voltage Current Balun*
- ***New** rugged Cabinet maintains hi-Q*

Made in the U.S.A.

The world's most popular legal limit antenna tuner just got better -- much better -- with no increase in price!

You get better efficiency, lower losses and a new true peak reading SWR/Wattmeter. It easily handles full 1500 Watts SSB/CW and covers 1.8 to 30 MHz, including MARS and WARC bands into balanced or unbalanced loads.

You can match dipoles, verticals, inverted vees, random wires, beams, balanced lines, coax, mobile whips, shortwave -- nearly any antenna.

You get everything you've ever wanted in a high power, full featured antenna tuner -- extremely wide matching range, lighted Cross-Needle SWR/Wattmeter, antenna switch, dummy load and balun.

Massive Transmitting Capacitors

New huge 500 pF *air variable capacitors* give you *twice* the capacitance for much more efficient operation on 160 and 80 Meters.

Specially shaped plates give low minimum capacitance resulting in an extremely wide matching range -- 160 thru 10 Meters.

New larger, more attractive *capacitor knobs* with easy-to-see dials make tuning much easier and precise.

MFJ AirCore™ Roller Inductor with new fast-tune Crank Knob

New and improved *AirCore™ Roller Inductor* gives you lower losses, higher Q and handles more power with no self-resonances. It gives you cool, efficient and smooth tuning on all bands and it's air core can't burn up!

Large, self-cleaning wiping contact gives excellent low-resistance connection without contact arcing or burning.

New fast-tune crank knob lets you reset your roller inductor quickly, smoothly and accurately.

A precision *gear driven* 3-digit turns counter lets you accurately reset your roller inductor for quick band changing.

TrueActive™ Peak Reading SWR/Wattmeter

New TrueActive™ peak reading *SWR/Wattmeter* lets you read *true* peak or average power on all modes. Large, easy-to-read *super-bright* LED lighted Cross-Needle meter lets you read SWR and forward/reflected (3000/ 300 Watt ranges) power at a single glance. Uses 9-Volt battery and/or 12 VDC or 110 VAC with **MFJ-1312D, $15.95**.

MFJ High Voltage Current Balun

New high voltage *current balun* lets you tune high and low impedance balanced lines without core saturation or voltage breakdown.

It's constructed with *two* giant $2^{1}/_{2}$ inch toroid cores and wound with *high voltage* wire connected to high-voltage *glazed ceramic* feedthrough insulators.

Super Antenna Switch

MFJ-989D's *super heavy duty* antenna switch is made of *two* individual *ceramic* wafers wired in parallel. Extra wide spaced, heavy duty contacts handle extreme voltages and currents. *We've never burned one up!*

You can select two coax antennas (directly or through tuner), balanced line/ random wire, or built-in dummy load.

Built-in Dummy Load

A *full-size* 300 Watt non-inductive 50 Ohm dummy load is built-in.

You'll find it handy for transmitter tuning, testing and repairing rigs, setting power level, adjusting mic gain and more.

New Cabinet maintains high Q

New roomy cabinet helps maintain components' high Q. Vent holes keeps components cool. Super construction -- non-stripping PEM nuts, wing-nut ground post, fire-retardant epoxy glass PC board, and heavy gauge wire throughout. Measures $12^{7}/_{8}$Wx6Hx$11^{5}/_{8}$D inches.

Lexan Front Panel

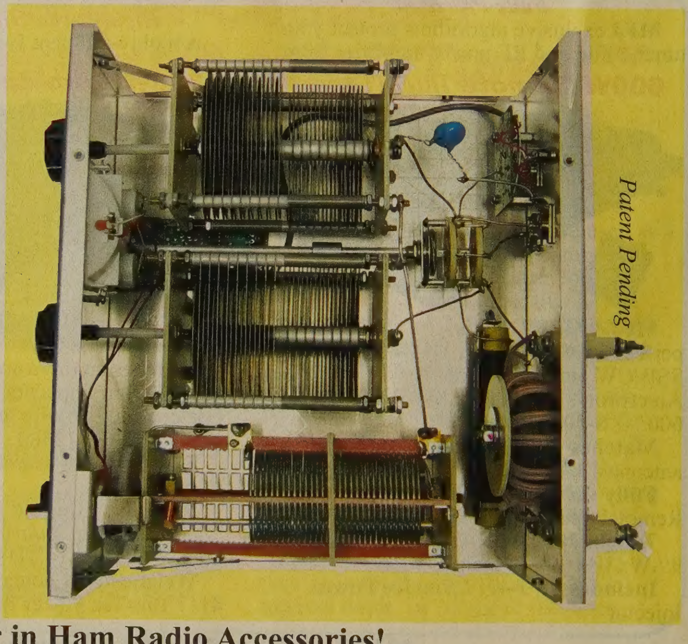
The MFJ-989D has a new nearly indestructable multi-color Lexan front panel. Its detailed logging scales and legends will be legible for a lifetime of DXing.

Wide Range T-Network

The MFJ-989D uses the time-tested wide range T-Matching Network. It gives you the widest matching range and is the easiest to use of all matching networks. With MFJ's new high value 500 pF air variable capacitors and new low loss roller inductor, it easily handles high power efficiently.

No Matter What™ Warranty

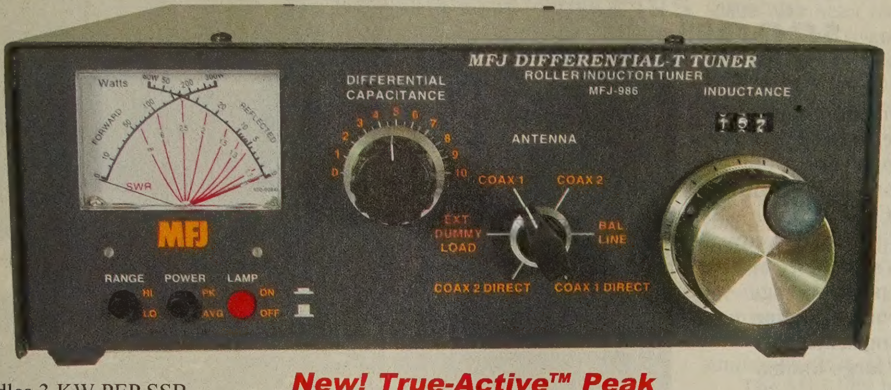
Every MFJ tuner is protected by MFJ's famous one year *No Matter What™* limited warranty. We will repair or replace your MFJ-989D *no matter what* (at our option) for one full year.



Patent Pending

MFJ KW Differential-T™ Antenna Tuner

. . . Gives you absolute minimum SWR . . . Simple 2-knob tuning . . . Lighted Cross-Needle SWR/Wattmeter . . . AirCore™ Roller Inductor . . . 6-position antenna switch . . . Balun for balanced lines . . . 1.8-30 MHz coverage



MFJ-986

$369⁹⁵

Ship Code E

MFJ's innovative *Differential-T*™ tuner uses a differential capacitor that makes tuning easier than ever. Gives minimum SWR at only *one* setting. Broadband design ends constant retuning.

The MFJ-986 is a rugged roller inductor antenna tuner that handles 3 KW PEP SSB amplifier input power (1500 Watts PEP SSB output power). Tunes 1.8-30 MHz *continuously*, including MARS and all the WARC bands.

MFJ's exclusive *AirCore*™ Roller Inductor gives *absolute minimum* SWR -- something tapped inductors just can't do.

3-digit turns counter plus a spinner knob gives precise inductance control so you can quickly retune your frequency.

A super-bright LED *lighted* peak/average reading cross-needle meter shows SWR, forward and reflected power at a single glance!

You get a 6-position antenna switch that lets you select two coax lines and/or random wires (direct or through tuner), balanced line and external dummy load.

The *MFJ TrueCurrentBalun*™ for balanced lines minimizes feedline radiation that causes field pattern distortion, TVI and RF in your shack. *Ceramic* feedthru insulators for balanced lines withstand high voltages and temperatures.

Differential-T Tuner™ . . . . A new twist on proven technology

Replacing two variable capacitors with a *single* differential capacitor gives wide range T-network tuning with just two controls -- a tuning capacitor and a roller inductor.

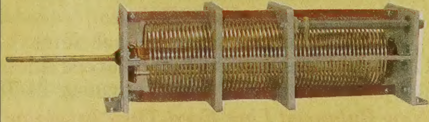
Simple 2-knob tuning makes tuning easier than ever. You get minimum SWR at only *one* setting and a broadband response that ends constant retuning. You'll spend your time QSOing instead of fooling with your tuner.

The compact 10¾x4½x15 inch all-aluminum cabinet has plenty of room to mount the roller inductor away from metal surfaces for highest Q -- you get high efficiency and more power into your antenna.

Wide-spaced tuning capacitor plates let you run high power without arcing.

New! True-Active™ Peak Reading SWR/Watts LED Meter!

MFJ *AirCore*™ roller inductor



MFJ's exclusive *super heavy duty AirCore*™ Roller Inductor has an air core that can't burn up! Get ultra high-Q, lowest loss, highest efficiency and highest power handling of any roller inductor in ham radio.

MFJ's exclusive *Self-ResonanceKiller*™ keeps potentially damaging self-resonances away from your operating frequency.

Large, self-cleaning wiping contact gives excellent low-resistance connection without contact arcing or burning.

Solid 1/4" brass shaft with self-align bearings gives smooth non-binding rotation.

TrueActive™ Peak Reading SWR/Wattmeter

New *TrueActive*™ peak reading *SWR/Wattmeter* lets you read *true* peak or average power on all modes. Large, easy-to-read *super-bright* LED lighted Cross-Needle meter lets you read SWR and forward/reflected (2000/200 Watt ranges) power at a single glance. Uses 9-Volt battery and/or 12 VDC or 110 VAC with **MFJ-1312D, $15.95.** Lamp on/off switch.

MFJ TrueCurrentBalun™ reduces feedline radiation

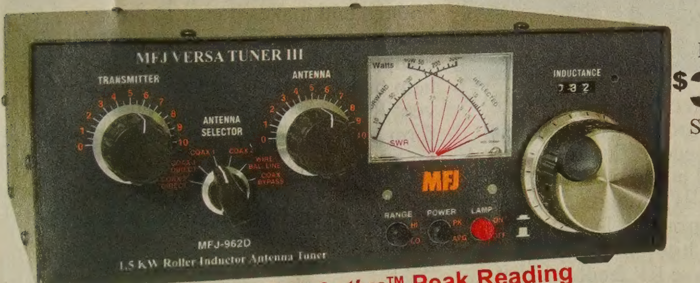
Most tuners use a *voltage* balun that forces equal voltages on the two antenna halves. It minimizes unbalanced currents only if the antenna is perfectly balanced -- not the case with practical antennas.

The MFJ-986 uses a *true* current balun to force equal *currents* in the two antenna halves -- even if the antenna is not perfectly balanced!

The *MFJ TrueCurrentBalun*™ gives superior balance over voltage baluns and minimizes unbalanced current. This reduces field pattern distortion, concentrates your power for a stronger signal -- plus reduces TVI and RF in your shack caused by feedline radiation.

MFJ-962D *Compact* Tuner for Linear Amplifiers

MFJ AirCore™ Roller Inductor, Compact Size, Lexan scratch-proof front panel . . . . . . handles AMERITRON's AL-811H!



New! TrueActive™ Peak Reading SWR/Watts LED Meter

MFJ-962D

$319⁹⁵

Ship Code C

Why settle for a mere 300 Watt antenna tuner when a *few* extra dollars let you add *real* power when you're ready? The MFJ-962D lets you use your barefoot rig now, then when you're ready . . .

When you're ready . . . you can add a powerhouse linear amplifier at no additional cost.

MFJ-962D handles 1500 Watts PEP SSB amplifier input power (800 Watts PEP SSB amplifier output power). Perfect for *Ameritron's* best selling 800 Watt AL-811H or 600 Watt AL-811 amplifiers.

Features MFJ's *AirCore*™ Roller Inductor, new aluminum-skirted knob set including a weighted deluxe spinner knob, ultra compact size (10¾ x4 x 10⅞ inches) and scratch-proof nearly indestructible multi-colored Lexan front panel.

Two transmitting tuning capacitors and MFJ's exclusive *AirCore*™ roller inductor gives precise control to get your SWR down to an absolute minimum. Get extremely wide matching range from 1.8 to 30 MHz *continuously*, including MARS and WARC bands.

MFJ's *AirCore*™ roller inductor has an air core that can't burn up. You get ultra high-Q, low loss and MFJ's exclusive *Self-Resonance Killer*™ that eliminates damaging self-resonances.

MFJ-962D now has the *True-Active*™ peak-reading SWR/Watts LED Meter! Lets you read *true* peak or average power on all modes. A super-bright LED *lighted* peak and average reading Cross-Needle SWR/Wattmeter makes tuning quick and easy. At one glance you can read SWR, forward and reflected power in two power ranges. Meter LED uses 12 VDC or 110 VAC with MFJ-1312D, $15.95.

A 6-position *ceramic* antenna switch lets you select 2 coax lines (direct or through tuner), random wire and balanced lines.

You get a heavy duty MFJ *TrueCurrentBalun*™ for balanced lines. High-voltage *ceramic* feedthru insulators let you operate high power into balanced feedlines.

MFJ 2500 Watts *ContinuousCarrier*™ Tuner

Silver plated Edge-Wound Roller Inductor . . .1000/500 pF Variable Capacitors . . . Antenna Switch . . . 4-Core Balun . . . true Peak Cross-Needle SWR/Wattmeter . . . Dummy Load . . . Extremely Wide Matching Range . . . Patent Pending . . .

MFJ-9982
$699.95
Ship Code F

The MFJ-9982 *ContinuousCarrier*™ antenna tuner handles 2500 Watts *continuous carrier output* on *all* modes and *all* HF bands into most unbalanced antennas -- even on 160 Meters where even the best antenna tuners fail!

The MFJ-9982 gives you every feature you'll ever want in a high power tuner -- wide matching range, 1.8 to 30 MHz coverage, 6-position antenna switch, 4-core balun, dummy load, *true* peak/average lighted SWR/Wattmeter, 6:1 reduction drives with detailed logging scales, 3-digit turns counter, extra large knobs.

New Components, New Technologies

The *Heart and Soul* of the MFJ-9982 is its roller inductor and variable capacitors.

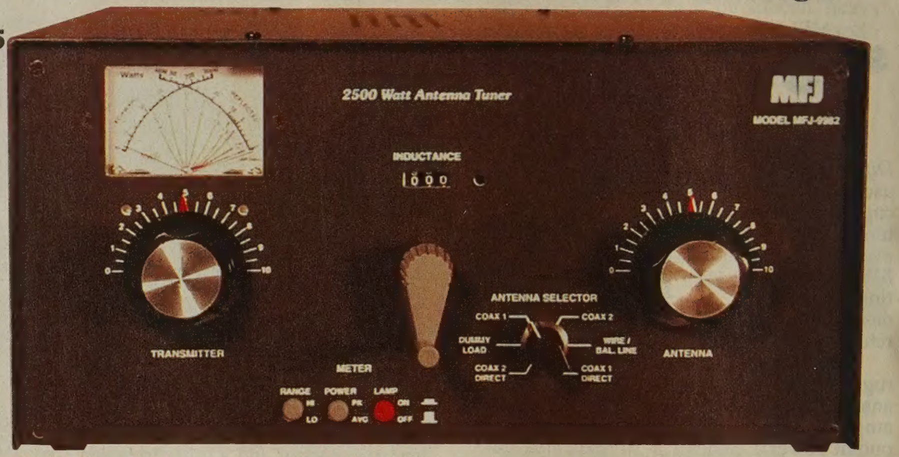
MFJ's high power, high-Q *continuous current AirCore*™ roller inductor is no ordinary roller inductor! It's edge wound from thick .06-inch *silver-plated* solid copper strap.

It can carry huge circulating RF currents and withstand tremendous heat that'll melt or burn up ordinary roller inductors.

Self-insulating construction reduces stray capacitance -- keeps self-resonant frequencies high and out-of-the-way. Dual, *silver-plated* compression wheels give ultra low-resistance contacts. New fast-tune crank knob.

High-current, high-capacitance 1000 pF and 500 pF air variable capacitors have low minimum capacitance and are self-insulating.

These newly developed capacitors and MFJ's patent pending innovation gives you very high efficiency on 160/80 Meters *and* extremely wide matching range on 10/12/15 Meters at 2500 Watts -- a feat *only* the MFJ-9982 has achieved.



Hi-Voltage/Current Antenna Switch

The antenna switch is completely isolated to handle high-voltage high impedance antennas. High-current, low impedance antennas are handled by parallel sets of high-current contacts of *two* ceramic switches.

New 4-Core Balun

Powerful balun -- Four 2½ inch cores, 12-gauge *Teflon*™ wire. Run balanced lines at full 2500 Watts SSB/CW continuous, 24/7.

New Balanced Line Feed-Thru Insulator

Allows massive antenna currents to flow directly to the antenna capacitor without passing though lossy screws or bolts.

TrueActive™ Peak Reading Circuit

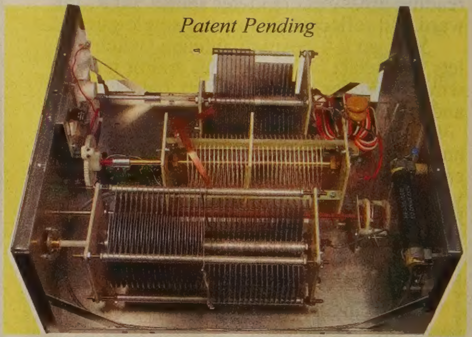
New TrueActive™ circuit reads *true* peak or average power on all modes. Super-bright LED lighted *Cross-Needle* meter reads SWR/forward/reflected power.

1500 Watt Dummy Load

1500 Watt air-cooled non-inductive 50 Ohm resistor. 100W/10 min., 1.5kW/10 sec.

New Cabinet maintains high Q

New roomy cabinet maintains high Q. Vent holes. Heavy gauge, .08 inch aluminum braced chassis. Vinyl cover, non-stripping PEM nuts, heavy 10-gauge or copper strap wiring throughout. 13¾Wx7Dx16¼D inches. 15 pounds.



Antenna Tuner/Artificial Ground

MFJ
MODEL MFJ-934
MFJ ANTENNA TUNER/ ARTIFICIAL GROUND

MFJ-934
$209.95
Ship Code B

MFJ-934 is unique because it has a built-in artificial ground. A ground matching knob lets you switch in inductance to bring an attached wire to a low impedance current point to form an artificial ground. A push button lets you use the Cross-Needle Meter to monitor for maximum ground current. With an artificial ground to work against, you'll be surprised to see how well a random wire can work.

You get a 300 Watt full featured antenna tuner that covers 1.8-30 MHz. Lighted CrossNeedle meter reads SWR/Forward/Reflected power at-a-glance. 4:1 balun for balanced lines. Features efficient airwound inductor, high current/voltage 12-position inductor switch and two 1000 volt air-variable capacitors. Tunes all antennas and feedlines including random wire, coax and balanced lines. 10⅝Wx3½Hx8D in.

MFJ Artificial RF Ground

Places your rig near earth ground potential!

MFJ-931
$109.95
Ship Code B

RF GROUND CURRENT
MFJ ARTIFICIAL GROUND
MFJ
INDUCTANCE
SENSITIVITY
CAPACITANCE
MIN
MAX

Create an artificial ground with this MFJ-931! It effectively places your rig near actual earth ground potential even if your rig is on the second floor or higher with no earth ground possible! It electrically places a far away RF ground at your rig.

How's your RF ground? Do you have RF "hot spots" that "bite" you when you transmit? Do you have RF feedback that causes your rig to quit working on some bands? Do you have TVI/RFI that makes your neighbors hard to live with? Do you get weak signal reports because of extreme ground losses or radiation pattern distortion?

These problems could be caused by poor RF grounding, especially if your rig is on a second floor with no ground at all. Even if you have a good ground, a long connection wire can ruin its effectiveness by isolating true RF ground from your rig.

4 Foot Ground Rod

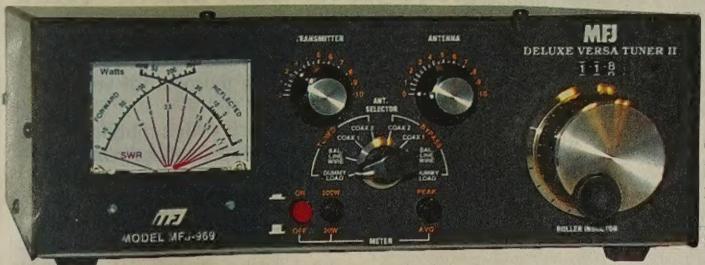
MFJ-1934
$9.95
Ship Code B

Durable four foot *copper bonded* steel earth ground rod is a tough 3/8 in. diameter that will last. Pointed end makes it easy to drive into the ground. Use it to tie your equipment to a single earth ground to help bleed off static and RFI and prevent RF hot spots. Use several to form a good RF ground for random, long wire and vertical antennas.

Continued . . . **MFJ-931** creates an artificial ground! It resonates a random length of wire thrown along the floor and produces a tuned counterpoise. This artificial ground effectively places your rig near actual earth ground potential with no earth ground possible. Reduces the electrical length of the ground connection wire to virtually zero by tuning out its reactance. MFJ-931 connects between your rig and a random length of wire or a connecting ground wire. It's tuned for maximum ground current using the built-in RF ammeter. 1.8 to 30 MHz. 7½Wx 3½Hx7D in. RF tight alu. cabinet.

MFJ 300W *Roller Inductor* Tuner

World's only 300 Watt AirCore™ Roller Inductor Antenna Tuner gives you absolute minimum SWR . . . Covers 6 Meters thru 160 Meters . . .



MFJ-969
$229.95
Ship Code C

MFJ-969 gives you MFJ's superb *AirCore*™ Roller Inductor and full 6 Meters through 160 Meters coverage!

You get everything you've ever wanted including . . . 300 Watts PEP SSB full featured antenna tuner, widest matching range, full-size lighted Cross-Needle SWR/Wattmeter reads true peak forward power, QRM-Free PreTune™, 8 position antenna switch, built-in 50 Ohm dummy load, heavy duty 4:1 balun -- all in a tough, attractive cabinet. MFJ's famous one year *No Matter What*™ limited warranty.

MFJ-969's *AirCore*™ Roller Inductor, gear-driven turns counter and spinner knob gives you exact inductance control for minimum SWR.

MFJ's exclusive *AirCore*™ Roller Inductor has an air core that can't burn up! You get ultra high-Q, the lowest loss, highest efficiency and highest power handling of any roller inductor in ham radio.

MFJ's exclusive *Self-Resonance Killer*™ keeps potentially damaging self-resonances away from your frequency.

Huge self-cleaning wiping contact gives you excellent low-resistance connection without contact arcing or burning.

Solid 1/4 inch brass shaft, self-align bearings -- smooth non-binding operation.

The MFJ-969 covers all frequencies from 160 Meters thru 6 Meters, including the "magic band" -- the widest matching range of any full featured antenna tuner.

Match any antenna

Match dipoles, verticals, inverted vees, random wires, beams, mobile whips, SWL receiving antennas -- nearly any antenna.

You can use coax cable, random wire or balanced lines. Has heavy duty 4:1 balun.

True Peak Reading Cross-Needle Meter

MFJ's new *ActivePeak ReadingCircuit*™ accurately reads *true* peak forward power -- *an MFJ exclusive.*

MFJ's lighted Cross-Needle SWR/Wattmeter reads SWR, *true* peak forward and average reflected power simultaneously on 300 Watt or 30 Watt ranges.

Lamp has on/off switch and uses 12 VDC or 110 VAC with MFJ-1312D, $15.95. *ActivePeakReading Circuit*™ can also use a 9 volt battery.

MFJ's 8 positions let you select two coax fed antennas, random wire/balanced line or built-in dummy load for use through your MFJ-969 or direct to your rig.

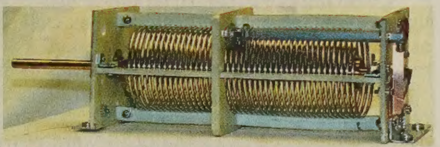
MFJ's *QRM-Free PreTune*™ lets you pre-tune MFJ-969 off-the-air into a built-in dummy load without causing QRM.

Pre-tuning into a dummy load makes tuning your actual antenna quick and easy!

The MFJ-969 has a full size non-inductive 50 Ohm dummy load. You'll find it handy for tuning, testing, repairing rigs, setting power level, adjusting mic gain, etc.

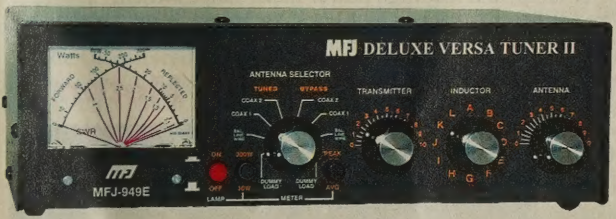
The tough aluminum case has a scratch-proof multi-colored Lexan front panel. Compact 3½Hx10½Dx9½W inches.

MFJ-969 AirCore™ Roller Inductor



Ham Radio's *Most Popular* 300 Watt Tuner

More hams use MFJ-949s than any other antenna tuner in the world!



MFJ-949E
$189.95
Ship Code B

More hams use MFJ-949E antenna tuners than any other antenna tuner in the world! . . . Why? Because the world's leading tuner has earned a worldwide reputation for matching just about anything.

Full 1.8-30 MHz Operation

Custom designed inductor switch, 1000 volt tuning capacitors, Teflon® insulating washers and proper L/C ratio gives you *arc-free* no worries operation with up to 300 Watts 1.8 to 30 MHz.

Tunes any antenna

Tunes out SWR on dipoles, verticals, inverted vees, random wires, beams, mobiles . . . nearly anything! Use coax, random wire or balanced lines. Has heavy duty 4:1 balun.

Custom inductor switch

The inductor switch is the most likely component to burn up in *any* antenna tuner.

MFJ's inductor switch in the MFJ-949E was *custom* designed to withstand the extremely high RF voltages and currents that are developed in your tuner.

8-Position Antenna switch

lets you select two coax fed antennas, random wire/balanced line or built-in dummy load through your MFJ-949E or direct to your transceiver.

Big Lighted Cross-Needle Meter

MFJ's *full-size* 3-inch lighted cross-needle Meter lets you easily read SWR, true *peak* forward and average reflected power simultaneously on 300 Watt or 30 Watt ranges. Lamp has on/off switch. Requires 12 VDC or 110 VAC with optional MFJ-1312D, $15.95.

QRM-Free PreTune™

MFJ's *QRM-Free PreTune*™ lets you pre-tune your MFJ-949E *off-the-air* into its built-in dummy load! Makes tuning your actual antenna faster and easier and helps you make friends in the amateur radio community by being nice.

Plus Much More!

***Full** size* built-in non-inductive 50 Ohm dummy load, scratch-proof Lexan multi-colored front panel, superior cabinet and construction and more! Measures a sleek and compact 10⅝x3½x7 inches.

MFJ-948 -- An *Econo MFJ-949E* for Only $159.95!

MFJ-948
$169.95
Ship Code B

All the features of the MFJ-949E -- world's favorite antenna tuner -- for an *incredibly low $159.95!* Dummy load not included; coax connector for one on rear panel. Includes custom designed inductor switch, 600V tuning capacitors, *full size* 3" Cross-Needle meter, 8 position antenna switch, heavy duty 4:1 balun, full 1.8 to 30 MHz operation. Compact 10½x3½x7 inches.

Pre-made Premium Coax Patch Cables

Weather resistant 50-Ohm coax patch cables with pre-soldered-on PL-259 connectors. Select length and choose from RG-58, RG-8X or RG-213 type. **Made in U.S.A.**

N-models are terminated with the N-type connectors.

length	RG-58	Price	RG-8X	Price	RG-213 (H)	Price
3 ft.	MFJ-5803	$6.95	MFJ-5803X	$9.95	MFJ-5803H MFJ-5803NH	$12.95 $14.95
6 ft.	**MFJ-5806**	**9.95**	**MFJ-5806X**	**11.95**	**MFJ-5806H** **MFJ-5806NH**	**$15.95** **$17.95**
9 ft.	MFJ-5809	**12.95**	MFJ-5809X	13.95	MFJ-5809H	$17.95
12 ft.	**MFJ-5812**	14.95	**MFJ-5812X**	**14.95**	**MFJ-5812H**	**$19.95**
18 ft.	MFJ-5818	**18.95**	MFJ-5818X	16.95	MFJ-5818H	$24.95
25 ft.	**MFJ-5825**	24.95	**MFJ-5825X**	**21.95**	**MFJ-5825H**	**$39.95**
50 ft.	MFJ-5850	**39.95**	MFJ-5850X	29.95	MFJ-5850H	$59.95
100 ft.	**MFJ-58100**		**MFJ-58100X**	**49.95**	**MFJ-58100H**	**$99.95**
50 ft.	MFJ-5850E	19.95	RG-58, 50 ft. open end, PL-259 on one end.			

MFJ Compact Mobile HF Antenna Tuner

Covers HF and 6 Meters, Handles 300 watts, Has Antenna Bypass Switch

The compact **MFJ-945E** mobile antenna tuner covers 6 Meters and HF (1.8- 60 MHz), handles 300 PEP watts, and tunes coaxial cable-fed antennas, plus random wires.

Don't leave home without this mobile tuner, and have a a better trip as the MFJ-945E extends antenna bandwidth and eliminates the need to stop, go outside, and readjust your mobile antenna.

The frustratingly narrow bandwidth of mobile antennas can be greatly broadened with this tuner.

Of course, this diminutive tuner can be used to tune coax-fed home station antennas of all kinds, too, as well as random wires.

The cross needle meter shows SWR, forward, and reflected power -- at a glance. It reads forward/reflected power in 300/60 and 30/6 watt ranges.

INDUCTANCE
TUNER
TRANSMITTER
ANTENNA
MFJ MOBILE TUNER
MODEL MFJ-945E
LAMP
MFJ

MFJ-945E
$139.95
Ship Code B

The ON/ OFF lamp switch is handy for changing light conditions in your vehicle; the meter lamp is 12 VDC powered with optional **MFJ-1312D**, $15.95.

Large, conveniently-placed controls make tuning fast and easy.

The bypass switch lets you bypass the tuner (connecting your antenna and transmitter directly) while still using its SWR/wattmeter.

The back panel has SO-239 coaxial connectors for your transmitter and antenna feedline and a wing nut post for your ground.

For at-home use with a random wire a standard banana plug fits neatly into the antenna jack.

An efficient airwound inductor gives you lower losses for more watts output.

The small, 8Wx2Hx6D inch black aluminum cabinet takes up little space.

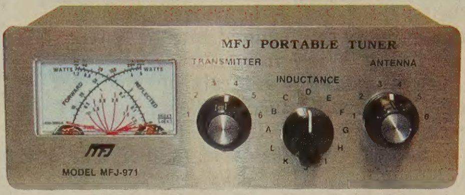
A mobile mounting bracket, **MFJ-20**, is $6.95. Add $2.00 shipping for the bracket if ordered separately.

Has MFJ's One Year *No Matter What*™ limited warranty.

Portable Tuner for QRP to Full-bore Transceiver

The MFJ-971 is a tiny, inexpensive portable 200 watt PEP antenna tuner that's a perfect match for today's ultra-compact HF transceivers while offering features especially designed for the QRP operator.

Covering 1.8 to 30 MHz, this T-match tuner can match coax-fed antennas, as well as those fed with balanced feedline, and random wires. Built-in 4:1 toroid balun for balanced lines.



MFJ-971
$129.95
Ship Code B

From the factory, the MFJ-971 offers forward power readings of 30 watts maximum or 300 watts, on its cross needle meter. You can monitor forward power, reflected power, and SWR simultaneously.

For dedicated QRP operation, swapping of a jumper plug internally converts the maximum forward reading on the meter to 6 watts. Great for use with MFJ's 90/94 series of CW and SSB individual band transceivers.

The meter lamp may be powered by an external 12 VDC source if you desire (**MFJ-1312D**, $15.95).

MFJ-971, while an all-around low-power tuner, is especially suited for MFJ transceivers and power packs. It matches them in size and styling and special brackets allow connecting the units together physically into an attractive and compact package. **Optional bracket set, p/n: 17-9020-1 is $4.95.**

As in all good antenna tuners, three controls give flexibility in matching: Inductance (12 positions), Transmitter, and Antenna. Once you find the proper setting on each band, just record it for future "instant band changing."

Rear panel includes SO-239 coaxial jacks for transmitter and antenna; 2 sturdy binding posts for balanced line; another binding post for a random wire; ground post; 12 VDC input jack for meter lamp; and low/high power meter range switch.

The MFJ-971 is backed by MFJ's *No Matter What*™ warranty.

Measures a tiny 6X6X2.5 inches.

MFJ 300-Watt *Super Value* Versa Tuner Covers 160-10 Meters

It's not just a tuner, it's an 8-position antenna switch.

The photo tells the story: you can select among two coaxial-fed antennas, a balanced line (4:1 toroid balun included) or random wire or an external dummy load, and for each you can select "direct" (bypassing the tuner) or "tuned."

This tuner is rated at 300 watts and can match dipoles, vees, random wires, and balanced and coax feedlines, from 1.8 to 30 MHz. You get a lighted cross needle SWR/wattmeter with on/off switch (lamp uses 12 VDC or 110 VAC with **MFJ-1312D**, $15.95).

MFJ-941E
$149.95
Ship Code B

The meter shows SWR, and forward and reflected power in 300/60 and 30/6 watt ranges selected at the front panel. An efficient 12 position airwound inductor gives low losses for more power out. Uses 1000 Volt capacitors.

ANTENNA SELECTOR
MFJ VERSA TUNER II
TRANSMITTER
INDUCTOR
ANTENNA
LAMP
MFJ-941E

The aluminum cabinet has a durable scratch-proof multi-color Lexan front panel to complement your rig and fits right into your station. $10\frac{5}{8}$Wx$2\frac{7}{8}$Hx7D inches.

MFJ's Smallest VERSA TUNER

ANTENNA
MFJ
INDUCTANCE
TRANSMITTER
MFJ VERSA TUNER
MODEL MFJ-901B

MFJ-901B
$99.95
Ship Code B

MFJ's smallest (5x$2\frac{1}{2}$x6) and most affordable 200 Watt PEP VERSA TUNER. Match dipoles, vees, random wires, verticals, mobile whips, beams, balanced and coax lines continuously from 1.8-30 MHz. A 4:1 balun for balanced lines is built into this MFJ-901B tuner. Three adjustment controls for maximum matching capability.

Random Wire Tuner for HF

INDUCTANCE
CAPACITANCE
MFJ
MFJ ANTENNA TUNER
MODEL MFJ-16010

MFJ-16010
$69.95
Ship Code A

Operate all bands 1.8-30 MHz -- anywhere with any transceiver -- using a single random wire and MFJ's *Random Wire Tuner*. Small enough to carry in your hip pocket. Handles 200 watts output. Matches high or low impedance loads by interchanging input and output, so it uses SO-239 connectors for both. Measures a compact $3\frac{1}{2}$Wx$2\frac{1}{4}$Hx$5\frac{1}{4}$D in.

MFJ-941EK Antenna Tuner *Kit*

MFJ-941EK
$129.95
Ship Code B

Ever wish you could just build your own? But then you get a list of the prices together and the time and effort to put one together and realize it is just not worth it. MFJ has now made it fun and economical to build and test your very own MFJ antenna tuner. You get the popular MFJ-941E, all of its guts totally apart so you can build it yourself. The finished kit features 1.8-30 MHz coverage, 300 Watts power handling, 1.5 inch Cross-needle SWR/Wattmeter, 1000 Volt capacitors, Lexan front panel decal, all aluminum chassis and cover. All knobs, hardware, components and switches are here to build your very own MFJ tuner!!! You don't have to punch a clock, but you don't get an MFJ paycheck either, just the joy and pride of building your own.

MFJ tiny Travel Tuners

Tiny 4½x2¼x3 inch tuner handles full 150 Watts! Covers 80-6 Meters, has tuner bypass switch, tunes nearly anything!

Now covers 6 Meters!

MFJ-902B
$\$109^{95}$
Ship Code A

MFJ brings you the world's smallest full power 150 Watt 80-6 Meter Antenna Tuner. Extra wide matching range lets you tune nearly any antenna.

It's no toy, its got guts! Built with real *air* variable capacitors (600 Volt, 322 pF) and *three* stacked powder iron toroids to handle real power -- not just QRP. Bypass switch lets you bypass tuner when you don't need it.

You can use nearly any transceiver at full power with nearly any coax fed or random wire antenna for portable, home or mobile operation.

It's perfect for compact rigs like Icom IC-706MKIIG, Yaesu FT-100D, Kenwood TS-50, QRP rigs and others with a built-in SWR meter.

Operate anywhere, anytime with a quick easy set-up! Tune out SWR on your mobile whip from inside your car.

Operate in your apartment with a wall-to-wall antenna or from a motel room with a wire dropped from a window or from a mountain top with a wire over a tree limb.

It's perfect for DXpeditions or field day -- packs up quickly and takes up little space. Helps you be prepared for emergencies -- this tuner and a wire antenna can be packed and set-up just about anywhere.

MFJ-902B is so small and handy, you'll rely on it wherever you go -- easy to pack away in your briefcase, suitcase, backpack, glove compartment or desk drawer.

It's tiny enough to slide in your back hip pocket! 4½Wx2¼Hx2¾D inches.

MFJ
6M
HF
MODEL MFJ-902B
ANTENNA
TRANSMITTER
INDUCTANCE
MFJ Travel Tuner
80 - 6 Meters / 150 Watts

MFJ Tiny Tuner w/4:1 Balun

ANTENNA
TRANSMITTER
INDUCTANCE
MFJ
MFJ Travel Tuner
with Balun / 80 - 10 Meters / 150 Watts

MFJ-902H, $119.95, is similar to MFJ-902 but covers 80-10 Meters and has a *4:1 balun* for tuning balanced line antennas. Binding post connections for balanced lines. Compact 5¾Wx2¼Hx2 ¾D inches.

Tiny Tuner with Cross-Needle SWR/WattMeter *and* 4:1 Balun

TRANSMITTER
ANTENNA
INDUCTANCE
MFJ
MODEL MFJ-904H
POWER RANGE
MFJ Deluxe Travel Tuner
with SWR / Wattmeter & Balun

MFJ-904H
$\$149^{95}$
Ship Code A

MFJ-904H is the same as MFJ-902 Tiny Travel Tuner but has a large 1.5 inch Cross-Needle SWR/Wattmeter and a 4:1 balun for tuning balanced lines.

It includes binding post connections for balanced line antennas and random wire antennas.

The Cross-Needle meter shows SWR, forward and reflected power *simultaneously at-a-glance*. A push button selects forward or reflected power in 300/60 and 30/6 Watt ranges. Measures a compact 7 ¼Hx2¼Hx2¾D inches.

Tiny Tuner with Cross-Needle SWR/Wattmeter

MFJ-904, $129.95. Same as MFJ-904H, has *Cross-Needle SWR/Wattmeter, see above* in MFJ-904 but no balun. Measures 7¼Hx2¼Hx2¾D inches.

TRANSMITTER
ANTENNA
INDUCTANCE
MFJ
MODEL MFJ-904
POWER RANGE
MFJ Deluxe Travel Tuner
with SWR / Wattmeter & Balun

MFJ *True Dual Band* VHF/UHF 200W Antenna Tuner

MFJ
135 - 175 MHz
144 MHz
440 MHz
FREQUENCY/POWER SELECT
MFJ VHF/UHF Antenna Tuner

MFJ-923
$\$199^{95}$
Ship Code A

MFJ-923 VHF/UHF Dual Band Antenna Tuner covers the complete 144 MHz and 440 MHz frequency ranges.

Built-in Cross-Needle SWR/Wattmeter measures SWR, forward and reflected power in two ranges: 300 or 30 Watts. Meter is usable for both bands 144 and 440 MHz. Handles 200 Watts.

Designed to match a wide range of impedances for both mobile and base operation. Single input and output SO-239 for radio and antenna connection. *Perfect* match for today's dual band radios with combined single output and dual band antennas. Wing nut post for ground, black aluminum cabinet, compact at 9½Wx4½Hx2⅝D".

MFJ 6 Meter/*VHF/UHF* Antenna Tuners

MFJ 6 Meter Antenna Tuners

MFJ
MFJ 6 METER TUNER
TRANSMITTER
ANTENNA
METER
LAMP

MFJ-906
$\$99^{95}$
Ship code A

MFJ-906, $99.95. Six Meter tuner. Low SWR with most any coax fed antenna.

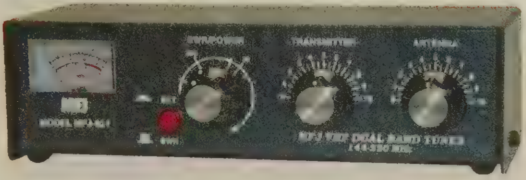
You'll get more power out of your transceiver and into your antenna for more DX.

Lighted Cross-Needle SWR/Wattmeter shows SWR, forward, reflected power, 300/60 and 30/6 Watt ranges. Order MFJ-1312D, $15.95 for meter lamp. Built-in bypass switch, handles 100 Watts FM, 200 Watts SSB PEP. Works with solid state and tube rigs, 50-60 MHz. 8Wx2½Hx3D inches.

MFJ-903, $69.95. Like MFJ-906. Less meter/bypass switch. Tiny 5Wx2½Hx3D inches makes it great for the backpack!

144/220 MHz or 440 MHz Tuner

MFJ-921/924
$\$89^{95}$
Ship code A


SWR/POWER
TRANSMITTER
ANTENNA
MFJ
MODEL MFJ-921
MFJ VHF DUAL BAND TUNER
144-220 MHz

MFJ-921 Dual Band VHF tuner covers 2 Meters/220 MHz.

Built-in SWR/Wattmeter measures SWR in 2 power ranges: 300 or 30 Watts. Meter is usable for both 144 MHz and 220 MHz bands. Low SWR with practically any antenna.

Handles 200 Watts. Designed to match a wide range of impedances for both mobile/base operation. SO-239 input/output connectors, wing nut post ground. Black aluminum cabinet measures a compact 8x2½x3 inches -- fits just about anywhere.

MFJ-924, $89.95. 440 MHz band only.

MFJ *Balanced Line* Antenna Tuners

Superb balance . . . Extremely wide matching range . . . Covers 1.8-54 MHz . . . Cross-Needle SWR Wattmeter . . . Handles 300 Watts . . . Compact size . . .

The MFJ-974HB is a *fully balanced* true balanced line antenna tuner. It gives you *superb* current balance throughout its very wide matching and frequency range.

MFJ-974HB
$\$229^{95}$
Ship Code C

Johnson Matchbox

For decades, the Johnson Matchbox has been the standard of comparison for balanced line tuners. But, it had a severely limited matching range and covered only 80, 40, 20, 15 and 10 Meters.

The MFJ-974HB is its successor. It meets today's needs and even surpasses the Johnson Matchbox outstanding performance.

Everything You Need

The MFJ-974HB gives you excellent current balance, very wide matching range(12-2000 Ohms) and covers 1.8 through 54 MHz *continuously* including all WARC bands, 160 Meters, 6 Meters and the new 60 Meter band. Handles 300 Watts SSB PEP and 150 Watts CW.

Tuning is fast and easy - - just three tuning controls. You can even adjust for highly efficient broadband low-Q operation or use higher Q when you encounter extreme loads.

A large three-inch lighted Cross-Needle SWR/Wattmeter lets you read SWR, peak or average forward and reflected power *all at a glance* on 300 or 30 Watt ranges.

A ground post is provided to ground one output terminal so you can also tune random wires and coax fed antennas.

Compact 7½Wx6Hx8D inches fits anywhere.

MFJ
INDUCTANCE

Tunes any Balanced Line

The MFJ-974HB tunes any balanced lines including 600 Ohm open wire line, 450/300 Ohm ladder lines, 300/72 Ohm twin lead - - shielded or unshielded.

Superb current balance minimizes feedline radiation that can cause troublesome TVI and RFI, painful RF bites, mysterious RF feedback problems and radiation pattern distortion.

Excellent Balance, Excellent Design

The MFJ-974HB is a *fully balanced* wide range T-Network using four gear driven 1000-Volt air variable capacitors and high-Q air wound tapped inductor for 80-10 Meters and separate inductors for 6 and 160 Meters. The tuning components are mounted symmetrically to insure electrical balance.

A 1:1 current balun is placed on the low impedance 50 input side to convert the balanced T-Network to unbalanced operation. The balun is made of 50 ferrite beads on RG-303 Teflon™ coax to give exceptional and efficient isolation. It stays cool even at maximum power.

Balanced Line = Extremely Low Loss

Balanced lines give extremely low loss. **Doublet**, horizontal loop, vertical loop, quad, double extended Zepp, Lazy H, W8JK antennas all give efficient multi-band operation when fed with balanced lines.

6-80 Meter Balanced Line Tuner

MFJ-974B
$\$209^{95}$
Ship Code C

MFJ-974B. Same as MFJ-974HB but for 6-80 Meter operation (no 160 Meters).

Antenna Accessories

MFJ-1777, $59.95. 102 feet all band doublet antenna covers 160-6 Meters with balanced line tuner. Super strong custom fiberglass center insulator provides stress relief for 450 Ohm ladder line (100 feet included). Authentic *glazed ceramic* end insulators. Handles 1500 Watts.

MFJ-18H100, $34.95. 100 feet of quality 450 Ohm ladder line.

MFJ-18G100, $24.95. 100 feet of extremely strong heavy duty 7-strand, 14-gauge hard copper antenna wire.

MFJ-16C06, $4.56. *6 authentic* glazed ceramic end/center antenna insulators. Extra strong. Will not arc or melt.

***New!* MFJ-16D01, $6.95.** Super strong custom fiberglass stress relieving center insulator for 450 Ohm ladder line.

See page 74-77 for more antenna accessories.

MFJ 1500 Watt *Fully Balanced* Antenna Tuner

Fully balanced MFJ-976 handles 1500 Watts legal limit . . . Extra-wide 12-2000 Ohms matching range . . . continuous 1.8 to 30 MHz coverage including all WARC bands . . . Four separate 500 pF in two gangs gives you a total of 2000 pF capacitance . . . Heavy duty 1:1 current balun . . . more!

The MFJ-976 is a 1500Watt full Legal Limit *fully balanced* antenna tuner.

You get *superb* current balance, very wide matching range (12-2000 Ohms) and *continuous* 1.8-30 MHz coverage including all WARC bands. Handles *full* 1500 Watts SSB *and* CW.

You can tune *any* balanced lines including 600 Ohm open wire line, 450/ 300 Ohm ladder lines, 300/72 Ohm twin lead -- shielded or unshielded. Also tunes random wires and coax fed antennas.

MFJ-976
$\$499^{95}$
Ship Code E

MFJ's *fully balanced* extremely wide-range T-network gives you simple, fast three knob tuning. No complicated switching between high and low impedance and switching in additional capacitance of L-networks.

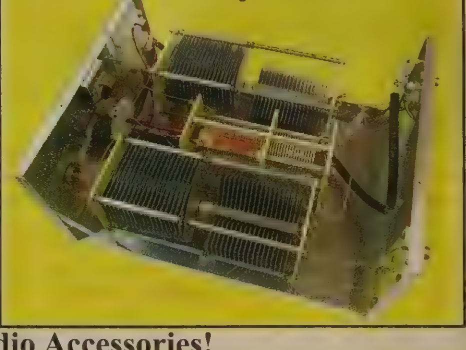
Four separate 500 pF in two gangs gives you a total of 2000 pF for highly efficient low loss operation on 160 Meters.

You get excellent 10 Meter performance because of MFJ's low minimum capacitance and exclusive *Self-Resonance Killer*™ high-Q *AirCore*™ roller inductor with silver plated contacts.

Heavy duty 1:1 current balun gives you *superb balance* and stays cool even at 1.5kW.

True *active* peak reading lighted Cross-Needle SWR/Wattmeter lets you read SWR, *true peak* or average forward and reflected power all at a glance on 300/ 3000 Watt ranges. *New!* Super-bright LED meter light. Use 12 VDC or 110 VAC with MFJ-1312D, $15.95. 12Wx6Hx15¾D in.

An inside view of the MFJ-976



MFJ Small, high efficiency *Loop Tuners*™

Turns any wire loop into small, high efficiency multi-band transmitting loop antenna

Mount for PVC Cross Loop

MFJ-933
$\$189^{95}$
Ship Code B

MFJ-935B
$\$209^{95}$
Ship Code B

MFJ-936B
$\$259^{95}$
Ship Code C

Drape a wire around a bookcase or window and attach both ends to this new *MFJ Small Loop Tuner*™.

***It** instantly turns into a small, high efficiency multi-band transmitting loop antenna!*

You can operate 5.3 to 30 MHz with a full 150 Watts. No ground, radials or counterpoises needed.

The excellent performance of a high-efficiency small loop antenna is legendary and well proven by users all over the world.

You'll radiate a low angle DX signal that literally rivals full size dipoles and work incredible DX!

It's a very quiet receiving antenna -- you'll hardly notice static crashes. Its high-Q reduces QRM, overloading, harmonics.

It's perfect for apartments, antenna restricted areas and portable operation -- *it really gets out!*

A 13 foot wire formed into a loop operates 30-20 Meters (4 foot for 17-10 M; 7 foot for 20-15 M; 28 foot for 60-40 M).

You can tune *any* shape loop -- circle, square, rectangle, *any* odd shape. A quarter wavelength wire shaped as a *circle* is the most efficient.

A given wire length covers about 1.5 to 1 frequency range (i.e. 7-10/18-28 MHz, etc.). Exact frequency coverage depends on wire length, loop shape, surroundings and height above ground.

Has MFJ low loss *Butterfly* loop tuning capacitor, no rotating contacts. *Easy-Carry* handle. Mount for PVC Cross on cover.

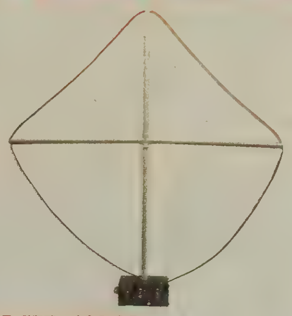
See June, 1986, *QST* or recent *ARRL Antenna Handbook* for more details on small, high efficiency loops.

MFJ-936B, $259.95. For home/portable stations. Has relative RF antenna current meter with sensitivity control and 30/300 Watts Cross-Needle SWR/Wattmeter. 9¼Wx5½Hx9½D inches.

MFJ-935B, $209.95. For portable/home stations. Smaller, lighter. Relative RF current meter with sensitivity control. 6¼Wx5½Hx9½D inches.

MFJ-933, $189.95. Same as MFJ-935B less RF current meter. 6¼Wx5½Hx9½D in.

Wire Loops and Mounts



MFJ-57B, $29.95.
Has PVC Cross for mounting loop on cover, 20-15M insulated 10-gauge flexible loop, low resistance lugs.

MFJ-58B, $49.95.
Has MFJ-57B above, plus 60-40 M, 20-15 M, 17-10 M loops; wire clips.

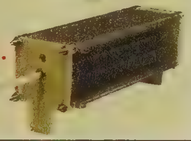
MFJ *Butterfly* loop Tuning Capacitors

The heart of the *MFJ Loop Tuners* is an extremely *low loss butterfly tuning capacitor* with no rotating contacts.

Each handles 1500 Volts RMS and has a ¼"diameter by 2½" long shaft.

A.

A. MFJ-19, $69.95.
12 to 67 pF.
6Dx3Wx3½H inches.


B.

B. MFJ-23, $89.95.
18 to 136 pF.
10Dx3Wx3½H in.

RF *Bypass* Switches

MFJ-1705
$\$19^{95}$
Ship Code A

MFJ-1705H
$\$29^{95}$
Ship Code A

Connect your antenna and transceiver to this MFJ *RF Bypass Switch* and you can switch in or bypass your antenna tuner, linear amplifier, preamp, wattmeter or other device -- switch in and bypass *any* coax fed device with PL-259 UHF connectors. DC to 60 MHz. SO-239 connectors. 50-75 Ohms. 3Wx1½Hx2½D inches.

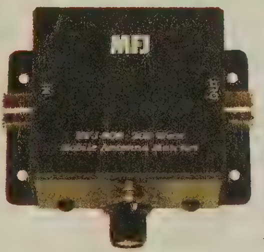
MFJ-1705, $19.95. 300 Watts.
MFJ-1705H, $29.95. 1500 Watts.

Variable RF Transformer

MFJ-907
$\$64^{95}$
Ship Code A

Multi-tap Variable RF Transformer matches low impedance (2-50 Ohms) of mobile antennas (ham sticks, screwdrivers, etc.) to 50 Ohm transceiver. 11 impedance ratios. Use in reverse to transform high impedances to 50 Ohms. Handles 1000 Watts. 1.8 to 30 MHz. SO-239 connectors.

Mobile Antenna L-Matcher



MFJ-908
$\$44^{95}$
Ship Code A

Matches HF mobile antennas (ham sticks, screwdrivers, etc.) 10-80 Meters by adding **L** (*inductance*) at the antenna feedpoint to ground to form L-network with antenna. 11 values of switchable inductance, .2 uH-12 uH. Handles 200 Watts. SO-239 connectors. 4Wx3¾Hx1¾D inches.

Mobile Antenna*Matcher*

MFJ-910
$\$29^{95}$
Ship Code A

Matches HF mobile antennas 10 through 80 Meters. Select five values of capacitance 120-470 pF to add at antenna feed point to ground to form L-network with antenna. Gives you more power out. Handles 300 Watts. SO-239 connectors. Tiny 3½Wx3Hx1¼D inches.

Mobile Antenna C-Matcher

MFJ-909
$\$44^{95}$
Ship Code A

Matches HF mobile antennas (ham sticks, screwdrivers, etc.) 10-80 Meters by adding **C** (*capacitance)* at the antenna feedpoint to ground to form L-network with antenna. 11 values of switchable capacitance 30 pF-2000 pF. 600 Watts. SO-239 connectors. 3½Wx3Hx1¼D inches.

AutoTuner *Extender*™

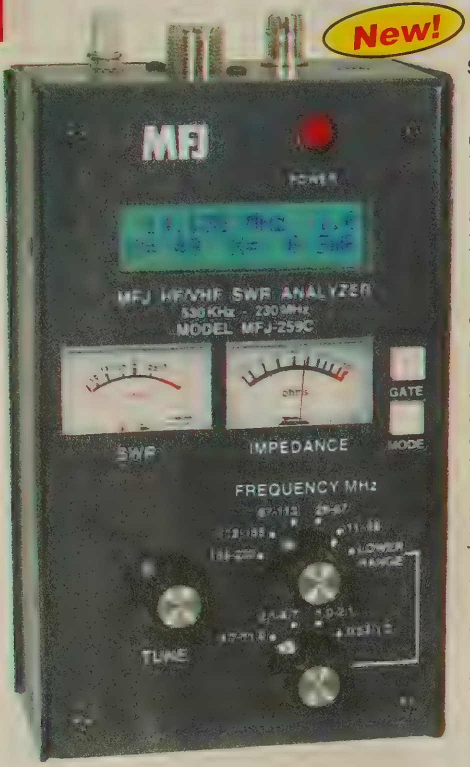
MFJ-914
$\$79^{95}$
Ship Code A

Does your rig's automatic tuner have limited matching range? MFJ-914 transforms your antenna impedance by as much as 10 times! Puts nearly any antenna into the range of your automatic or manual tuner. Covers 160-10 Meters, handles 300 Watts, has bypass position. Measures a compact 6Wx4Hx2½D inches.

MFJ-259C 530 KHz to 230 MHz SWR Analyzer™

Reads complex impedance . . . Super easy-to-use

MFJ-259C reads SWR . . . Complex RF Impedance: Resistance (R) and Reactance (X) or Magnitude (Z) and Phase (degrees) . . . Coax cable loss (dB) . . . Coax cable length and Distance to fault . . .Return Loss . . . Reflection Coefficient . . . Inductance . . . Capacitance . . . Battery Voltage. LCD digital readout . . . covers 530 KHz-230 MHz . . . frequency counter . . . side-by-side meters . . . Ni-Cad/Ni-MH charger circuit . . . battery saver . . . low battery warning . . . smooth reduction drive tuning . . . more!



MFJ-259C -- World's most popular Antenna Analyzer just got better! Now covers super wide range -- 530 KHz to 230 MHz -- no gaps!

Super easy to use!

Just set the bandswitch and tune -- just like your transceiver. SWR, Complex antenna Impedance and frequency are all instantly displayed simultaneously!

Gives you complete picture of your antenna

Read SWR, return loss and reflection coefficient at any frequency all at once.

Read Complex Impedance as series resistance and reactance (R+jX) or as magnitude (Z) and phase (degrees).

Determine velocity factor, coax cable loss in dB, length of coax and distance to a short or open in feet.

Measure inductance in uH and capacitance in pF at actual operating frequencies.

All-in-one ham radio test set

MFJ-259C
$299.95
Ship Code B

Includes frequency counter, RF Generator, *SWR Analyzer*™, RF Resistance and Reactance Analyzer, Coax Analyzer, Capacitance and Inductance Meter and more!

Large easy-to-read two line LCD screen and side-by-side meters clearly display your information.

Here's what you can do . . .

Find your antenna's true resonant frequency. Trim dipoles and verticals for lowest SWR at your favorite frequencies.

Adjust your Yagi, quad, loop and other antennas, change antenna spacing and height and watch SWR, resistance and reactance change instantly. You'll know exactly what to do by simply watching the displays.

Perfectly tune critical HF mobile antennas in seconds for super DX -- without subjecting your transceiver to high SWR.

Measure your antenna's 2:1 SWR bandwidth and analyze multiband performance! Check SWR outside ham bands without transmitting and violating FCC rules. Adjust your antenna tuner for a perfect 1:1 match without creating QRM.

Take the guesswork out of building and adjusting matching networks and baluns and antennas.

Accurately measure distance to short or open in failed coax. Measure coax length in feet, loss in dB, velocity factor and impedance.

Measure inductance, capacitance. Troubleshoot and measure resonant frequency, Q of traps, stubs, transmission lines, RF chokes, tuned circuits and baluns.

Lower band can be retuned to cover 470 to 940 KHz for maritime and 600 Meter bands.

Built-in Ni-MH/Ni-CD charger circuit, battery saver, low battery warning and smooth reduction drive tuning.

Use 10 AA or Ni-MH batteries (not included) or 110-240 VAC with optional MFJ-1312D, $15.95. Rugged, compact all-aluminum contruction, 4Wx6^{3}/4Hx2D inches.

Maritime and 600 Meter Coverage

MFJ-259CM, $299.95. Like MFJ-259C except the bottom band covers 470-940 KHz for Maritime and 600 Meter bands.

SWR Analyzer Accessories

MFJ-29D, $24.95. Tote your MFJ-259C anywhere with this *genuine* MFJ custom carrying case. Has back pocket with security cover for carrying dip coils, adaptors and accessories. Made of special foam-filled fabric, it cushions blows, deflects scrapes, and protects knobs, meters and displays from harm. Clear protective window for display and cutouts for knobs and connectors. *Authentic MFJ logo!*

MFJ-29DAC, $70.85. Carrying pouch, dip coil adapters, MFJ-1312D power supply.

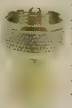
MFJ-99C, $45.90. MFJ-1312D, 110/220 VAC power supply, ten Ni-MH batteries.

MFJ-29DABC, $103.80. *Deluxe Accessory Pack* has 10 Ni-MH batteries, MFJ-1312D power supply, MFJ Carrying pouch, dip coils. ***Save $7!***

MFJ-92AA10, $29.95. 10-pack MFJ NiMH AA rechargeable batteries.

MFJ-5510C, $9.95. 12 VDC cigarette lighter adapter lets you use your MFJ SWR Analyzer *on-the-road* to make quick adjustments to your HF/VHF/UHF mobile antennas! 18" retract-ed curly cord, 60 inches fully stretched. Easily fits in glove compartment.

Adapters for your MFJ-259C



MFJ-7737, $5.95. PL-259 to BNC Female Adapter.

MFJ-7727, $5.95. PL-259 to SMA Female Adapter.

MFJ-249C SWR Analyzer™

Save a few bucks!

MFJ-249C
$279.95
Ship Code A

MFJ-249C is similar to the MFJ-259C, but less analog meters. MFJ-249C reads SWR, true impedance magnitude and frequency only on LCD module. Has nicd/nimh charging circuit, can use MFJ-259C accessories.

Tunable Analyzer Filter

MFJ-731
$99.95
Ship Code A

Exclusive MFJ tunable RF filter allows accurate MFJ SWR and impedance measurements between 1.8-30 MHz in presence of strong RF fields. Has virtually no effect on measurements by the analyzer. Works with all SWR Analyzers.

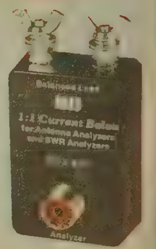
MFJ Analyzer Dip Coils

MFJ-66C
$29.95
Ship Code A

MFJ-66, $29.95. Plug these MFJ dip meter coupling coils into an MFJ *SWR Analyzer*™ and turn it into a sensitive and accurate *band switched* dip meter. Set of two coils cover 1.8-230 MHz depending on your *SWR Analyzer*™.

Analyzer Current Balun

MFJ-917
$29.95
Ship Code A



This new 1:1 Current balun lets you use your MFJ SWR and Antenna Analyzers on balanced line antennas and other loads. Covers 1.8-30 MHz. 2Wx3$^{3}/_{4}$Hx1$^{1}/_{2}$D in. SO-239 for analyzer input.

MFJ-7702, $3.95. PL-259 to PL-259 barrel connector.

530 KHz-230 MHz *plus* 415-470 MHz

New! HF/VHF/*UHF* SWR Analyzer

Covers 530 KHz-230 MHz and 415-470 MHz . . . SWR . . . Complex RF Impedance: Resistance(R) and Reactance(X) or Magnitude(Z) and Phase(degrees) . . . Coax cable loss(dB) . . . Coax cable length and Distance to fault . . . Return Loss . . . Reflection Coefficient . . . Inductance . . . Capacitance . . . Battery Voltage. LCD digital readout . . . frequency counter . . . side-by-side meters . . . Ni-MH/Ni-Cad charger circuit . . . battery saver . . . low battery warning . . . smooth reduction drive . . .

MFJ-269C
$399⁹⁵
Ship Code B

MFJ-269C covers 530 KHz to 230 MHz *and* 415 to 470 MHz *-- an MFJ-269C exclusive!* Includes all the features of MFJ-259C, *the world's most popular SWR Analyzer* plus much more!

Large easy-to-read two line LCD display and side-by-side meters clearly display your information. **Built-in** Ni-Cad/Ni-MH charger circuit, battery saver, low battery warning, smooth reduction drive tuning. Use as signal source for testing/alignment.

Built-in *CoaxCalculator*™ -- calculates coax line length in feet given coax length in electrical degrees and vice versa for any frequency and any velocity factor (great for building matching sections and phasing lines) *-- an MFJ-269C exclusive!*

New 12-bit A/D converter gives much better accuracy and resolution than common 8-bit A/D converters *-- an MFJ-269C exclusive!*

Super easy to use! Just set the bandswitch and tune the dial -- just like your transceiver.

530 KHz to 230 MHz Range Features

MFJ-269C gives you a complete picture of your antenna. Read antenna SWR and Complex Imped-ance 530 KHz to 230 MHz. Built-in frequency counter.

Lower band is retuneable to cover 470-940 KHz for maritime and 600 Meters.

Read Complex Impedance as series equivalent resistance and reactance (Rs+jXs) or as magnitude (Z) and phase (degrees).

Also reads parallel equivalent resistance and reactance (Rp+jXp) *-- MFJ-269C exclusive!*

Determine velocity factor, coax loss in dB, length of coax and distance to short/open in feet.

Read SWR, return loss and reflection coefficient at any frequency simultaneously at a single glance. Also reads match efficiency.

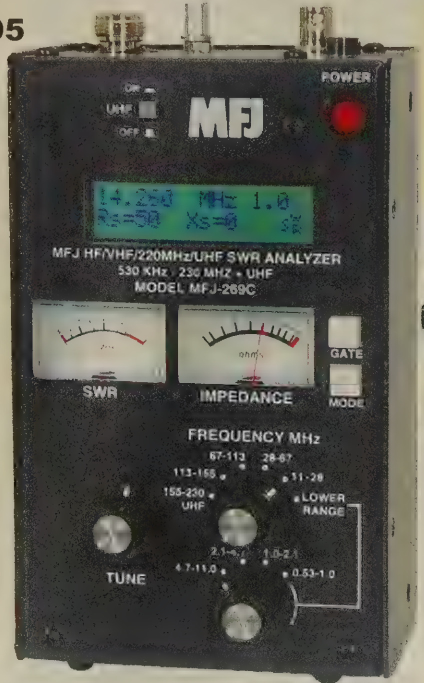
Also read inductance in uH and capacitance in pF at RF frequencies.

Measure SWR and loss of coax with *any* characteristic impedance, 10 to over 600 Ohms, including 50, 51, 52, 53, 73, 75, 93, 95, 300, 450 Ohms *-- MFJ-269C exclusive!*

415 to 470 MHz Range features

Just plug in your UHF antenna coax, set the frequency and read SWR, return loss and reflection coefficient simultaneously. You can read coax cable loss in dB and match efficiency.

You can adjust UHF dipoles, verticals, yagis, quads and other antennas and determine their SWR, resonant frequency and bandwidth.



You can test and tune stubs and coax lines. You can manually determine velocity factor and impedances of transmission lines.

Adjust and test RF matching networks and RF amplifiers without applying power.

Has easy-to-read LCD *logarithmic* SWR bargraph and SWR meter for quick tuning.

Take it anywhere

Fully portable, take it anywhere -- on remote sites, up towers, on DX-peditions. Has built-in "N-type" connector.

Includes *Free* N-to-SO-239 adaptor. Use 10 AA Ni-MH or Ni-Cad or alkaline batteries (not included -- alkalines cannot be charged internally) or 110-240 VAC with optional MFJ-1312D, $15.95.

Compact 4Wx2Dx6$^3/_4$H inches.

Maritime and 600 Meter Coverage

MFJ-269CM, $399.95. Like MFJ-269C except the bottom band covers 470-940 KHz for Maritime and 600 Meter bands.

MFJ-269C*PRO*™ Analyzer

MFJ-269CPro, $419.95. Like MFJ-269C, but has its UHF range coverage *430 to 520 MHz* and an extended *commercial-style* cabinet for lab work (helps protect knobs and connectors from damage.

MFJ-269C SWR Analyzer Accessories

MFJ-39D, $29.95. Tote your MFJ-269C anywhere with this *genuine* MFJ custom carrying case. Back pocket with security cover for carrying dip coils, adaptors and accessories. A special foam-filled fabric cushions blows, deflects scrapes, and protects knobs, meters and displays from harm. Wear it around your waist, over your shoulder, or clip it onto the tower while you work -- the fully-adjustable webbed-fabric carrying strap has snap hooks on both ends. Has clear protective window for frequency display and cutouts for knobs/connectors -- use your MFJ *Analyzer*™ without taking it out of the case.

MFJ-269C SWR Analyzer Accessories

MFJ-99C, $45.90. *MFJ-259C/269C Power Pack.* 10-Pack *SuperCell*™ Ni-MH batteries, & MFJ-1312D 110/220 VAC Power supply.

MFJ-39DAC, $70.85. *MFJ-269C Accessory Pack.* Has MFJ-39C *custom* Carrying Pouch for MFJ-269, MFJ-1312D power cube, and MFJ-66 dip coils.

MFJ-39DABC, $103.80. Complete accessory pack! Pouch, batteries, coils, power cube.

MFJ-92AA10, $29.95. MFJ 10-Pack AA *SuperCell*™ Rechargeable Ni-MH Batteries.

MFJ-66C, $29.95. Dip coil set 1.8-230 MHz. Turns MFJ-269C into a *dip meter.*

MFJ-5510C, $9.95. 12 VDC Cigarette lighter adapter cord for using your MFJ SWR Analyzers *on-the-road.* 18 inches of retracted curly cord, 60 inches fully stretched.

MFJ-269 Adaptors for HT Antennas

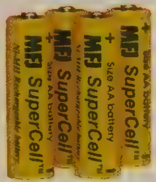
MFJ-7730, $5.95. (*Left*). N-Male to SMA Female Adapter.

MFJ-7731, $5.95. (*Right*). N-Male to BNC Female Adapter.

High Capacity 2500mAh AA & 800mAh Ni-MH Batteries

MFJ-92AA01
$3⁴⁹ each
Ship Code A

MFJ-92AAA01
$1⁹⁹ each



MFJ-92AA01, $3.49 each.
MFJ-92AAA01, $1.99 each.

MFJ's *super high capacity* Ni-MH AA and AAA batteries have twice the power of standard Nicads at about the same price! *No* detrimental memory effect that plagues typical Ni-Cad batteries.

MFJ-92AA10, $29.95. 10-Pack of 2500 mAh MFJ *SuperCells*™, perfect for your MFJ-259B and MFJ-269 SWR Analyzers!

MFJ-92AAA01, $7.25. 4-Pack of 800 mAh MFJ *SuperCells*™, for MFJ-225 graphical SWR Analyzer.

MFJ *POWERHaus*™ Ultra-fast Intelligent Charger

MFJ-633
$29⁹⁵
Ship Code B

Charges AA-AAA-C-D and 9V Ni-MH or Ni-Cd Battery types.

Active intelligent IC detects positive/negative, and monitors the voltage level during charging process.

Two separate sets of charging compartments optimize energy efficiency. Auto switches to trickle when full charge is completed.

MFJ-633 has charging status LEDs, removable dust cover and 12V, 500 mA AC adapter is included. Quick charges 2-4 AA Ni-MH cells in an hour or less!

MFJ HF/VHF/UHF Antenna Analyzer
1.5-185 MHz plus 220 and 300-490MHz*

All the RF-diagnostic functions you need with easy-to-use MFJ-266C digital analyzer!

The MFJ-266C covers HF, VHF, plus UHF amateur and commercial frequencies with digital precision. It also displays SWR, Complex Impedance, and Impedance magnitude simultaneously -- all on the same easy-to-read LCD screen. Use it to measure Capacitance, Inductance, Field Strength, Frequency, plus generate test signals. You can also fine tune stubs, analyze coax, test baluns and RF transformers, and perform many other important RF-related tasks around the shack or on the road!

MFJ-266C
$\$359^{95}$
Ship Code B

When it comes to simplicity and convenience, MFJ-266C is a winner. Not only is it easy-to-use, but fits comfortably in one hand for on-the-fly measurements on the bench or in the field. Here's the rundown of what this compact powerhouse can deliver:

Frequency Coverage

The MFJ-266C covers all bases -- 160 through 6 Meters, the FM broadcast band, Airband, 2 Meters, 220 MHz, 70 cm, plus VHF/UHF commercial 2-way frequencies:

Band A: 1.5 to 2.7 MHz
Band B: 2.5 to 4.8 MHz
Band C: 4.6 to 9.6 MHz
Band D: 8.5 to 18.7 MHz
Band E: 17.3 to 39 MHz
Band F: 33.7 to 65 MHz (gap*)
Band V: 105 to 230 MHz *220 MHz!*
Band U: 300-490 MHz

The velvet-smooth 10:1 vernier drive and solid state varicap makes fine tuning a breeze, Built-in dial lock prevents accidental detuning making measurements. Switched backlighting LCD screen is easy-to-read in any light.

SWR, Impedance Magnitude, and Complex Impedance

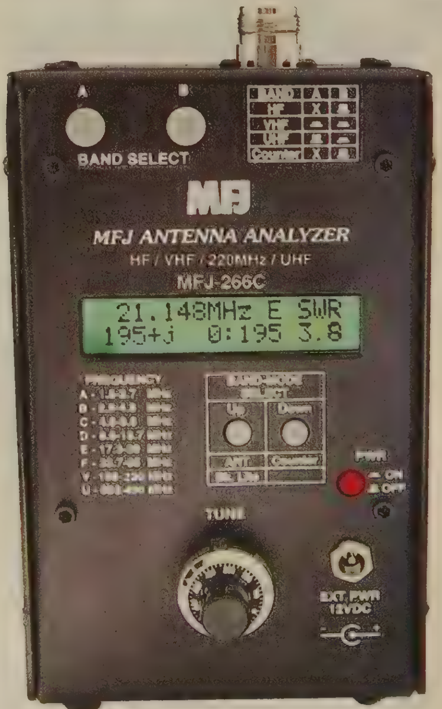
In SWR Mode, MFJ-266C reads SWR 1:1 to 9.9:1, Impedance Magnitude 10-500 Ohms and Complex Impedance (resistance and reactance). Best of all, it displays all three parameters simultaneously and operating frequency with one quick glance. *No other low-cost handheld analyzer offers this!* (Note: Z-mag and R+jX not displayed on UHF).

Capacitance and Inductance

Find values for unknown capacitance in pF or unknown inductance in uH quickly. Measurements are made at RF frequencies rather than at the low audio frequencies used by many handheld L/C meters.

Frequency Measurement, Field Strength Readings

In Frequency-Counter Mode, MFJ-266C becomes an accurate 500-MHz counter with a choice of 1-kHz or 100-Hz resolution. The counter mode also features a high-resolution *digital field-strength meter* for measuring the relative intensity of incoming signals. Together, these functions are extremely useful for checking the operation of oscillators, transmitters, as well as assessing the strength of radiated signals from antenna arrays.



Built-in Interference Detection

In Frequency-Counter Mode, MFJ tracks down powerful local signals that disrupt accurate SWR measurements. When picked up by an antenna under test, these signals compete with MFJ-266C's internally generated test signal to make SWR readings appear artificially high. Handheld antenna bridges are subject to additive interference, but only MFJ detects the offending signal, displays severity, and identifies frequency!

Powerful Signal Source

MFJ-266C also functions as a tunable signal source, supplying about 2 Volts peak-to-peak across the entire tuning range. You can use this signal to drive mixers, low-power amplifier stages, or filters, and use it as a source for checking antenna patterns on a range. Add a step attenuator, (**MFJ-762, $89.95**) and it becomes a low-level signal source for testing receivers and pre-amps.

Take it With You!

You'll love the compact size and bantam weight of MFJ-266C when perched on a tower. Also, push-button band switching lets you toggle across the spectrum with ease when tucked into cramped spaces.

User-Friendly Layout

MFJ-266C is ergonomic, antenna N-connector positioned on top of the case and everything else arranged and clearly marked on front panel -- right in front of your eyes.

MFJ-266C's operating manual was professionally written and illustrated to help you understand and master every function quickly. It also includes a guide for ensuring accu-rate results and getting the most from the unit's advanced features. In the back, you'll find a one-page "Quick Guide" that reviews all controls and functions.

Many Instruments in One

Having MFJ-266C is like owning several pieces of test equipment. You get a powerful wide-range signal source, Inductance/Capacitance meter, network analyzer, RF field-strength meter and a 500-MHz frequency counter all-in-one small package.

Bullet Proof Construction

Features like the rugged aluminum case, solid-state band switching, robust internal construction, and solid-state LCD display ensure that bumps and drops won't faze the unit in the least. Expect it to hold calibration and reliable service for years to come.

Vital Statistics

Uses eight internal AA alkaline batteries or optional 12VDC/110 VAC adapter with optional **MFJ-1312D, $15.95.**

Has *built-in* Li-ion battery charger. Use optional **MFJ-18650, $8.95.** Powerful 3.7V, *3000 mAh* Li-on battery.

Compact $3\frac{3}{4}$Wx$6\frac{1}{2}$Hx$2\frac{3}{4}$D inches. Weighs 1.32 lbs. Draws 30-mA in counter and 140-mA in analyzer modes. Includes N-to-SO-239 adaptor.

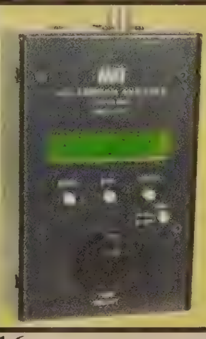
HF/VHF/UHF SWR Analyzer™

MFJ-266B
$\$299^{95}$
Ship Code B

BAND SELECT
MFJ
MFJ ANTENNA ANALYZER
HF / VHF / UHF
MFJ-266
TUNE

MFJ-266B, $299.95. Has all of the popular features of the MFJ-266C but the MFJ-266B covers 1.5-185 MHz and 300-490 MHz. It does not cover the 220 MHz frequency range.

MFJ HF SWR Analyzer 1-60 MHz



MFJ-213
$\$199^{95}$
Ship Code B

MFJ-213 covers 1-60 MHz with digital precision. It also displays SWR, complex impedance, and impedance magnitude simultaneously -- all on the same easy-to-read LCD screen.

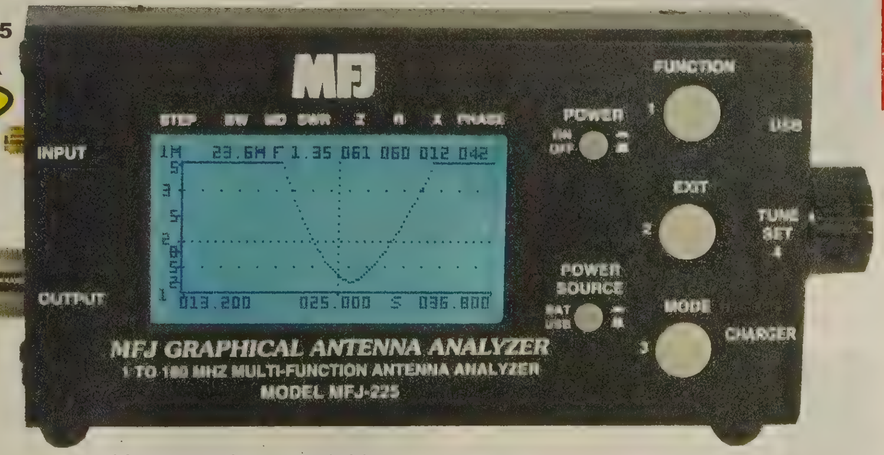
Use it to measure capacitance, inductance, field strength, frequency, plus generate test signals. You can also fine tune stubs, analyze coax, test baluns and RF transformers, and perform many other important RF-related tasks around the shack or on the road!

MFJ-213 has all of the features of the popular MFJ-266C but only covers 1-60 MHz.

MFJ-225 HF/VHF Two-Port Graphic Antenna Analyzer

Take RF testing to the next level with the new MFJ-225! All the basic analyzer functions you've come to depend on plus a host of advanced features like built-in LCD graphics, two-port VNA measurement, PC-Interface using IG-miniVNA freeware, precise DDS frequency control, self-calibrating . . . easy-to-use!

MFJ-225
$399.95
Ship Code A
New!


MFJ
STEP BW MD SWR Z R X PHASE
1M 23.6M F 1.35 061 060 012 042
013.200 025.000 036.800
INPUT
OUTPUT
POWER ON OFF
FUNCTION 1
USB
EXIT 2
TUNE SET
POWER SOURCE BAT USB
MODE 3
CHARGER
MFJ GRAPHICAL ANTENNA ANALYZER
1 TO 180 MHZ MULTI-FUNCTION ANTENNA ANALYZER
MODEL MFJ-225

Two Analyzers in One

Out in the field, MFJ-225 is a compact completely *self-contained handheld analyzer*. On the bench it becomes a full-fledged two-port (S21) desktop machine when teamed up with your PC. Using powerful IG-miniVNA freeware, you'll run detailed data analysis and then print out stunning color-graphic plots to document your work!

Seeing is Believing

Get a big picture every time with MFJ-225's *built-in back-lighted 3-inch LCD graphic display*. Make fine circuit adjustments using full-screen easy-to-view SWR bar graph, capture vivid swept displays for SWR, impedance, return loss, phase angle, more! Operation is simple, you can adjust the center frequency, tuning step, and sweep width instantly while viewing your plot, literally shaping it before your eyes.

Continuous HF-VHF Coverage

Tunes from 1.5 MHz to 179.9 MHz with rock-solid stability and *no gaps*. That's because the MFJ-225's VFO is a state-of-the-art programmable DDS (direct digital synthesis) generator with *pin-point 1-kHz frequency resolution*. DDS control means no mechanical band switches or tuning elements, just a reliable velvet-smooth optical encoder to glide across the spectrum.

Powerful Clean Signal Source

The MFJ-225 DDS stimulus generator also gives you a leveled -5 dBm signal source for driving mixers, low-power amplifiers, filters, networks, diplexers, and antennas on the test range. And, your test signal is always clean, with *over -50 dBc* of harmonic and spur suppression. That's better than many precision lab generators costing thousands of dollars! Connect an external step attenuator, and it becomes a high-quality signal generator for peaking sensitive receivers and preamplifiers.

Information Powerhouse

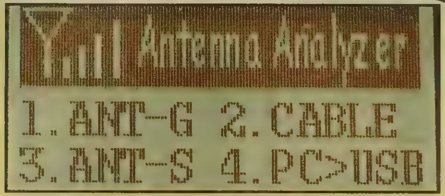
The MFJ-225 *simultaneously* compiles and displays all important parameters you need on a single screen, giving you a wider range of results at a glance. You'll work faster and smarter without the inconvenience of scrolling through menus or making tedious conversions to get your data.

What the MFJ-225 Measures:

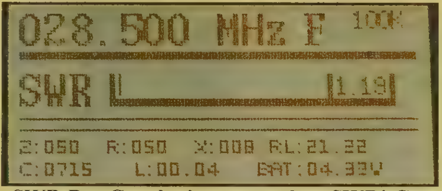
- SWR (1:1 to 9.9:1)
- Complex Impedance (R+jX)
- Impedance Magnitude (Z)
- Return Loss (RL, 0-30dB)
- Phase (0-180°)
- Capacitance (0-9999pF)
- Inductance (.1uH-80uH)
- Cable Length (0.5-45m)
- Cable Loss (0-30dB)

Two-Port Flexibility

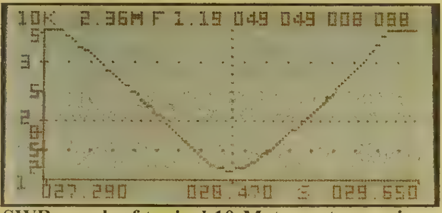
In addition to traditional single-port (S11) reflected-power measurements, MFJ features an invaluable advantage of making *two-port* (S21) forward-power measurements, essential for optimizing filters, diplexers, matching networks, etc. It bridges the gap between a simple scalar analyzer and true vector-analysis performance.


Antenna Analyzer
1.ANT-G 2.CABLE
3.ANT-S 4.PC>USB

MFJ-225's simple 4 selection menu chooses Bar Graph SWR, Cable Test, Swept Antenna Plots or PC interface to run IG-miniVNA.


028.500 MHz F 100K
SWR 1.19
Z:050 R:050 X:008 RL:21.22
C:0715 L:00.04 BAT:04.33V

SWR Bar Graph gives more than SWR! Get test frequency, DDS tuning step, digital SWR value, impedance magnitude, complex impedance, return loss, C/L values, battery condition.



SWR graph of typical 10-Meter antenna gives big picture plus plot's center frequency, sweep width, DDS tuning step. Additional plots obtained by a switch for impedance magnitude, resistance, reactance, return loss and phase.

Ergonomic Operation

"Advanced features" conjure visions of greater complexity and more buttons to push . . . not true for MFJ-225! The graphic display is *"advanced"* because it places *more information at your fingertips* without needless scrolling and searching. Also, the layout is unique with three large *soft-touch* selector buttons located on the front panel next to the screen and a large side-mounted frequency control knob conveniently positioned for your right hand. Everything is located where it needs to be for intuitive operating and unobstructed screen view!

Easy To Power

MFJ-225 can be powered by four AAA alkaline batteries or four AAA Ni-MH rechargeable batteries (batteries not incl.). Optional **MFJ-1312D, $15.95** or any external 12 VDC power is required for the built-in recharging circuit with charge indicator LED. LED will light while charging and turn off when cycle is completed. On the bench, power it through the USB power port using any USB power source. Optional USB cable, **MFJ-5430, $2.95**.

Self-Calibrating

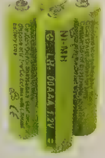
In order to maintain *out-of-the box accuracy*, all analyzers require periodic calibration checks -- a potentially time-consuming operation that may require special RF loads and step-by-step procedures. However, the MFJ-225 uses built-in firmware to perform its entire calibration routine in less than a second! Simply initiate the "calibrate" command and you're done!

Specifications

MFJ-225 requires 4 NiMh AAA cells or optional power adapter **MFJ-1312D, $15.95.** PC interface requires a USB Type-B cable.

Analyzer's OUT port is SO-239. IN port is SMA-female. $3\frac{3}{32}$Wx$6\frac{1}{8}$Hx$1\frac{1}{2}$D inches.

Accessories



MFJ-92AAA04, $7.25. 4-Pack of Ni-MH rechargeable batteries.

MFJ-7719, $4.95. SMA Male to SO-239 adaptor for VNA port.

MFJ-1312D, $15.95. 12 VDC, 300 mA, center positive 2.1 mm plug. Power adaptor for charging Ni-MH batteries internally.

MFJ-5430, $3.95. USB cable for external power from your PC for MFJ-225.

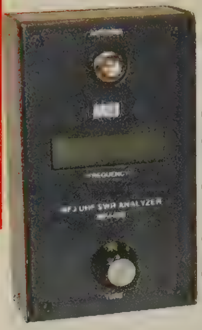
MFJ-95, $28.71. Accessory Package includes all of the above accessories. Save $ when you purchase the package!

NoMatterWhat™ Warranty

Protected by MFJ's famous *No Matter What*™ limited one year warranty.

HF/VHF/UHF SWR Analyzers for all Your Building Needs

MFJ-229 Reads SWR of Any Antenna from 270-480 MHz



MFJ-229
$\$209^{95}$
Ship Code A

Just plug in your antenna coax, set the frequency and read SWR!

Easy-to-read LCD displays frequency and SWR and has a *logarithmic* SWR bargraph for precision tuning. Two line high-contrast LCD has 32 huge 1/4 inch characters.

Select any desired frequency range for tuning. Examples: Tune from 280 to 295 MHz, 320 to 350 MHz or 400 to 450 MHz.

Tuning knob has a built-in 10:1 vernier reduction drive for precision tuning.

You can use the MFJ-229 to adjust dipoles, verticals, yagis, quads and other antennas and determine their SWR, resonant frequency, and bandwidth.

Test and tune stubs and coax lines. You can determine velocity factor, impedances and estimate losses of transmission lines.

Adjust and test RF matching networks and RF amplifiers without applying power.

Use as signal source for testing and alignment. Requires 15VDC or 110 VAC with optional MFJ-1318, $15.95, wall adapter. Measures $3^3/_4$Wx$6^1/_2$Hx$1^3/_4$D".

Basic HF/VHF SWR Analyzer™

MFJ-209C
$\$199^{95}$
Ship Code A

MFJ *Starter* SWR Analyzer™ lets you read SWR from 530 KHz to 230 MHz quickly only on a single analog meter. Tune knob, frequency control switch. No LCD module, counter or charging circuit. Use 10 AA cells or 110 VAC with MFJ-1312D, $15.95. Compact, handheld size: 4x$2^1/_2$x$6^3/_4$ inches.

MFJ-219B Econo MFJ-229

MFJ-219B
$\$119^{95}$
Ship Code A

Similar to MFJ-229, less LCD display.

The MFJ-219B Antenna SWR Analyzer covers 420 to 450 MHz. Has meter for SWR and jack for external frequency counter. Measures $2^1/_2$Wx$7^1/_2$Hx $2^1/_4$D inches.

MFJ-229 and MFJ-219 have "N" connector with *free* N-to-SO-239 UHF adapter. Also they have Battery Check and Power Saving feature. For 50 Ohm antenna systems. Use 9-Volt battery or 110 VAC with **MFJ-1312D, $15.95.** 10 AA batteries for MFJ-229 or 110 VAC adapter.

MFJ VHF *SWR Analyzer™*

MFJ-208
$\$99^{95}$
Ship Code A

VHF *SWR Analyzer™* finds the SWR on a calibrated dial of any antenna from 138-156 MHz -- a must-have for any VHF antenna builder!

Has jack for external frequency counter -- helps in testing your VHF handhelds and other gear.

Measures $7^1/_2$Hx$2^1/_2$Wx$2^1/_4$D inches -- super compact so you can carry it to your antenna source.

Use 9 Volt battery or 110 VAC with optional **MFJ-1312D,** $15.95 wall adapter.

HF *10-160M SWR Analyzer™*

MFJ-207
$\$109^{95}$
Ship Code A

This compact MFJ HF SWR Analyzer will help you build the antennas you need for DX work.

Just plug in the coax to measure the SWR of any HF antenna, 160 to 10 Meters. Has jack for external frequency counter. 9VDC of 110 VAC with **MFJ-1312D, $15.95.**

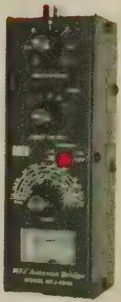
Plug in coax to find the SWR of any HF antenna on any band 10-160 Meters.

Jack for external frequency counter. 9 V battery or 110 VAC with MFJ-1312D, $14.95. Measures $7^1/_2$Hx$2^1/_2$Wx$2^1/_4$D in.

MFJ Antenna Bridge

New & Improved! Now has AGC for constant readings.

MFJ-204B
$\$99^{95}$
Ship Code A



No other equipment needed. Take it to your antenna site. Determine if your antenna is too long or too short, measure its resonant frequency, and its resistance to 500 ohms. It's the easiest, most convenient way to determine antenna parameters. Resistance bridge, null meter, tunable oscillator-driver (1.8 to 30MHz). 9 VDC or 110 VAC with **MFJ-1312D, $15.95.** $7^1/_2$Hx$2^1/_2$Wx$2^1/_4$D inches.

MFJ RX Noise Bridge

Quickly adjust almost any antenna for maximum performance, 1 to 100 MHz.

MFJ-202B
$\$79^{95}$
Ship Code A

Lengthen or shorten your antenna for minimum SWR. Measure resonant frequency, feedpoint resistance and reactance.

Works with any receiver or transceiver.

Hand-calibrated resistance scale, expanded capacitance range and exclusive built-in range extender. $4^1/_4$Wx2Hx4D in.

Use 9 Volt battery (not included).

Custom 24-350 MHz Analyzers

$\$279^{95}$
Ship Code A

For commercial applications. Select a specific frequency range and MFJ will customize an analyzer for you. Choose the model below for your needs. Specify frequency range and allow 4 weeks for these models.

MFJ-220A, 24-49 MHz
MFJ-220B, 34-69 MHz
MFJ-220C, 45-91 MHz
MFJ-220D, 67-135 MHz
MFJ-220E, 90-176 MHz
MFJ-220F, 190-350 MHz
MFJ-220G, 140-260 MHz

Economical Dip Meter covers 1.5-250 MHz

Back in the vacuum tube days they called these babies *grid* dip meters and every ham and experimenter either had one or wanted one. The MFJ-201 solid state (hence no "grid") is smaller, lighter, and vastly more versatile than its ancestor. Use it as a traditional dip meter to find a coil's resonant frequency.

MODEL MFJ-201
1.5 250 MHz MFJ DIP METER

MFJ-201
$\$149^{95}$
Ship Code A

Couple it to an antenna, or to coax lines to get their electrical length.

Or use it as an absorption wavemeter for measuring transmitter output, neutralizing tank circuits, or a field strength meter.

Other traditional dip uses include: crystal oscillator, monitoring audio signal output (it includes a headphone jack), and measuring inductance and capacitance.

This solid-state grid dip meter covers 1.5-250 MHz in 6 bands, has thumb wheel tuning, color code readout, 6 coils, earphone jack and battery check. Uses a 9V battery for operation. Measures a compact 2Wx$2^1/_2$Dx7H" including coils.

Foam-Padded carrying case

MFJ-6404
$\$39^{95}$
Ship Code C

Great for portable, dxpeditions, traveling, hotels, etc. Heavy-duty case takes a beating but keeps electronics safe with its universal foam insert. Pre-separated tear-away cubes let you shape the foam to custom fit your gear. Eggshell type padding on topside. Handle, carrying strap, two key sets, left/right snaps. $10^3/_4$Dx16Wx4H in. **MFJ-6404F, $12.95.** Extra foam insert for MFJ-6404. Accessories in picture not included.

MFJ-223 *1-60 MHz* Color Graphic VNA Analyzer

Pocket-Size, Incredible Performance! Truly accurate SWR, R, X and Z!

This *pocket-sized wonder* breaks the mold for analyzer design with user-friendly convenience, top notch accuracy, and a vivid TFT multi-color display. Don't let the size fool you, MFJ-223 is packed with all the VNA features and performance you need!

For example, get data for SWR, resistance (R), reactance (X), and impedance magnitude (Z) delivered on a color-coded *high-resolution* bar-graph display or sharply defined swept-frequency plots.

Get continuous DDS frequency coverage with 100-Hz resolution and a full selection of tuning steps and sweeps.

There's a movable marker that calls up alpha-numeric data for any point on any plot -- and a memory to capture current data when you turn the analyzer off.

Get other useful features too, like a built in help menu and a field-strength indicator warns when powerful interference is present.

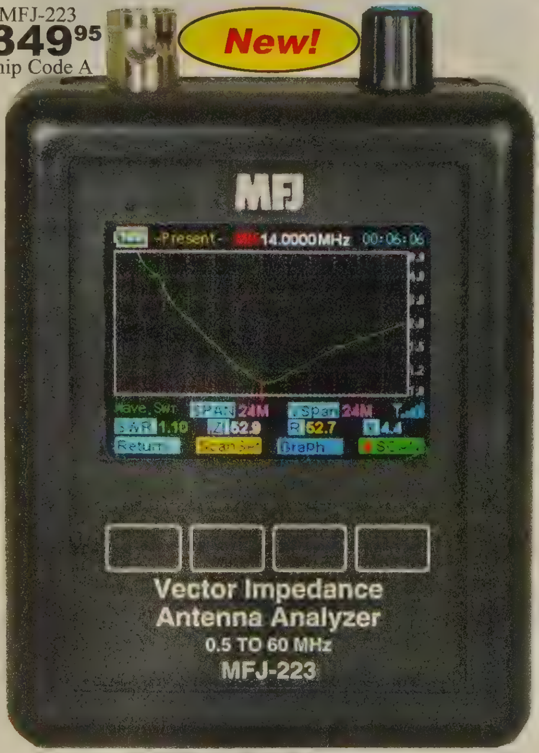
Best of all, juggling batteries is a thing of the past -- a long-running lithium-polymer power source is built right in. Recharge via any USB port.

Check out these specifications:

- **Single-frequency** and *swept-frequency* operating modes
- **Truly accurate** SWR, R, X, and Z measurements
- **Seamless DDS** coverage with 100-Hz resolution from 1-60 MHz
- **Smooth "skip-free"** encoder tunes fast or slow without missing a step
- **Powerful +5-dBm** stimulus generator overrides local interference
- **Field-strength meter** measures local signals, detects potential interference
- **DDS generator** precision signal source

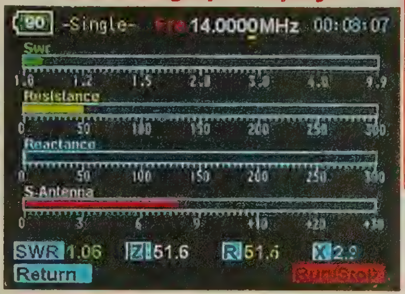
MFJ-223
$349⁹⁵
Ship Code A

New!



Shown actual size

Multi-bargraph Display:



SWR, R, X and Z are simultaneously displayed in vivid color graphs.

- **Vivid 1600-pixel/inch** color graphics on a 2x2 inch non-glare TFT screen
- **High-lumen** output, easy to read in direct sunlight
- **Easy setup**, only four control switches with convenient on-screen soft menus
- **Personalized ID function** programs your call or name onto the display
- **Built-in 3.7-V** 1800-mAH lithium-polymer battery charges with Battery Status Indicator and Auto Shut-off. *Optional* **MFJ-5431, $4.95**, Micro USB to USB Charge Cable.

- **Charge %** always displayed, multi-color LED monitors charge status
- **Built-in clock** shows elapsed time when unit is turned on
- **Tiny** 2¾Wx3½Hx1⅜D", just 5.1 oz.
- **BNC** Male to SO-239 adaptor included.

MFJ *RF Design Box* Variable Inductor/Capacitor Tester

This compact device places a wide range of patchable L and C values in your hands to solve *virtually any HF tuning and matching problem.* MFJ-5904 RF Design Box is one of those rare *"must have"* units, especially if you have an antenna analyzer!

After all, inductors and capacitors are fundamental building blocks for RF design. Imagine being able to build and test virtually any popular HF configuration in minutes without ever lifting a soldering iron!

No need for modeled predictions when you can connect a few patch leads and find optimized values for absolute peak performance. Even try different network configurations to see which one is the best!

Here are just a few of the circuits you can assemble: • L-networks, T-networks, Pi-networks • Band-pass filters, Band-stop filters • Traps and reject Filters • Loading inductors • Shunt-L/C shunt-matching elements • Load Converters • Power Reducers • Q meter • Antenna-analyzer pre-selector • Selective field-strength meter • Ant. Tuners

MFJ-5904 is built for reliable portability with a compact molded case and high-quality jacks and controls. Best of all, each component is 300-watt ATU rated so you can put your designs *to the test* using a 100-Watt rig!

Two capacitor banks are continuously adjustable 12 pf to 912 pf plus a stepped inductor that is adjustable 0.1 to 11.2 uH. Controls RF-isolated from the aluminum front panel for your safety, and you'll get plenty of guidance from a professionally written and illustrated user's manual.

Packed with loads of information and data to erase the *"black magic"* associated with RF design. This tremendous training tool will help you develop a true *hands-on* feel for how each type of RF tuned-circuit works.

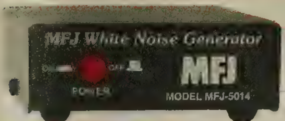
Why spend hours soldering and lashing prototype circuitry together only to discover that something else might work better? Let the RF-Design Box do it all for you in a matter of minutes. 7Wx3Hx5⅜D inches.

MFJ-5904
$149⁹⁵
Ship Code A

New!

MFJ RF Design Box

MFJ *White Noise* Generator



MFJ-5014
$39⁹⁵
Ship Code A

New!

The MFJ-5014 is perfect for IF and HF sensitivity checks, tuning and testing filters, adjusting networks, and much more. Combine with a directional coupler to measure return-loss. Requires 9-V battery for operation. Has BNC and SO-239 connectors. Tiny aluminum construction, 4¼Wx1¾Hx2¾D inches.

Variable Res/Cap Sub Box

MFJ Resistor - Capacitor Box
RESISTANCE
MFJ

MFJ-5902
$39⁹⁵
Ship Code A

New!

A 10-K potentiometer and a two-section 300-pF variable capacitor, both with calibrated scales, combined into one handy handheld package (capacitors may be paralleled). Insulated terminal posts accept standard test probes and patch cables. 4Wx1½Hx2⅝D inches.

Variable Resistor Sub Box

MFJ-5900
$74⁹⁵
Ship Code A

New!

Six standard-value pots with calibrated scales, universal terminal posts accept test probes and patch cables. Great for design work or service bench! 7Wx3Hx5⅜D inches.

MFJ-868B *World's largest SWR/Wattmeter* has giant 6½" meter

MFJ-868B
$149.95
Ship Code B

World's *largest HF+6M SWR/Wattmeter measures a giant 6½ inches diagonally across meter scale!* Covers 1.8-54 MHz.

This one you can See! Its huge scale gives you ultra-fine resolution and its big high-contrast numbers makes reading a breeze -- even across your shack.

The meter needle position and motion gives you an accurate indication for what's going on *quickly* without actually reading the scale -- like your analog watch.

True Peak Reading Circuit

MFJ's exclusive *TrueActive*™ peak reading circuit captures *true* peak or average forward and reflected power readings. Has 20/200/ 2000 Watt ranges makes it valuable for QRP or QRO operation.

Full SWR Scale

The full SWR scale makes reading SWR much more accurate and easier to read.

Power Saver™ Circuit

Exclusive MFJ Wattmeter *Power Saver*™ circuit turns on meter only when RF power is being measured.

Covers 1.8-54 MHz. Use 9 volt battery or 12 VDC or 110 VAC with optional MFJ-1312D, $15.95. Cabinet measures 7Wx5½Hx5D inches.

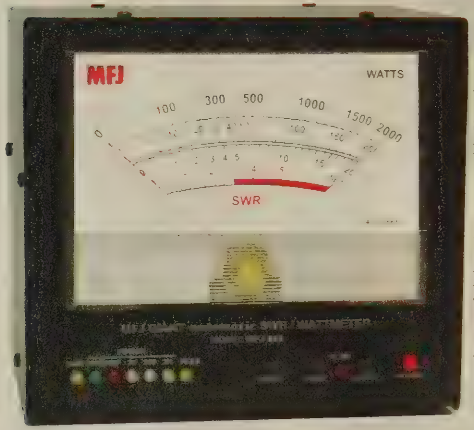
MFJ
WATTS
SWR
MFJ Giant SWR/Wattmeter

Giant 6½" Meter!!!
Covers 1.8 to 54 MHz!

World's Largest VHF/UHF SWR/Wattmeter!

MFJ-867, $159.95. MFJ-867 is similar to MFJ-868B giant wattmeter but covers 144/220/440 MHz frequencies. Has 400/200/20 Watt ranges.

Giant Automatic SWR/Wattmeter



MFJ-869
$219.95
Ship Code B

Fully-automatic *auto ranging* MFJ-869 has a giant 6½ inch meter.

MFJ-869 has 20/200/2000 Watt scales with a *TruePeak*™ active circuit and average forward and reflected power modes and fully-automatic SWR readings.

It also has an *Amplifier Bypass Control*™ and *Control Relay* for high SWR.

MFJ-869 has Field-upgradeable firmware. Has high SWR Audio and Visual Alarms to warn you of imminent danger to your expensive electronic equipment.

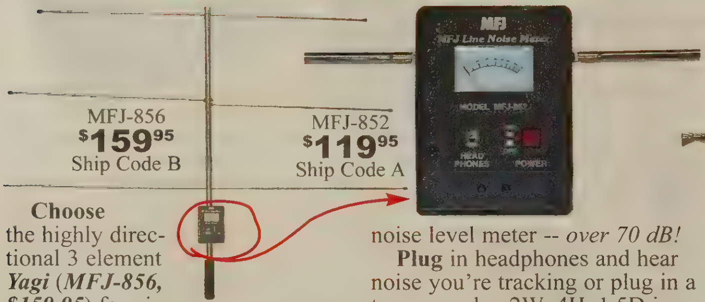
It covers 1.8-60 MHz frequency ranges. It's an all-new microprocessor design that'll give you years of use. Has seven LED indicators. All-metal attractive black cabinet measures 7Wx5½Hx5D inches.

MFJ HF QRP Wattmeter and SWR Bridge

MFJ-813
$39.95
Ship Code A

Read forward and reflected power from 0-5 Watts on a calibrated meter scale -- Plus read SWR and relative power at any power level from 100 mW to 50 Watts. Bruene-style bridge circuit detects both RF current and RF voltage to ensure uniform accuracy across a wide range of load impedances, operating frequencies, and power levels. It's a great tool for working on your QRP radios, running on-air QRP signal trials, or setting up antennas out in the field. Covers 1.8 to 50 MHz. SO-239 UHF connectors. Rugged black aluminum case measures a compact 4½Wx2¼Hx3D inches.

Find Power Line Noise Fast!



MFJ-856
$159.95
Ship Code B

MFJ-852
$119.95
Ship Code A

Choose the highly directional 3 element Yagi (*MFJ-856, $159.95*) for pinpoint accuracy or the compact telescoping *dipole* (*MFJ-852, $119.95*) for quick noise finds.

Walk or drive around with these *handheld* power line noise meters to search out leaky insulators, loose hardware and corroded ground lines quickly. Track noise right down to the pole,transformer or insulator, or other source.

Operates in the 135 MHz region where activity is a minimum and radiation from corona and arcing is far more localized. 0.3 uV sensitivity and wide-range AGC for noise level meter -- *over 70 dB!*

Plug in headphones and hear noise you're tracking or plug in a tape recorder. 2Wx4Hx1.5D in.

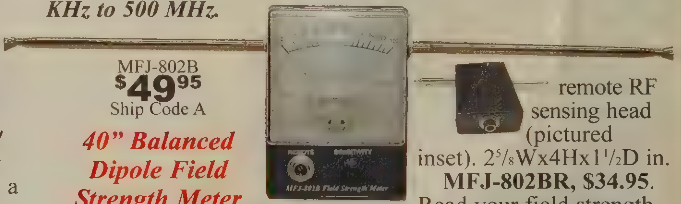
Use this ultra-sensitive pocket-sized RFI Detector to track down and eliminate RFI caused by radiating cables and wires. It'll tell exactly which cable is radiating RFI so you can eliminate it with a simple toroid or clamp-on filter.

Find RFI generated by consumer devices, computers and office equipment. Eliminate the RFI source and hash, birdies, whistles and transient noises amazingly disappear.

MFJ-1767, $79.95. Add this 3-element beam to your MFJ-852, and turn it into an RFI finder.

MFJ Field Strength Meters

Determine radiation pattern; make changes to your antenna and see if it radiates better or worse. Adjust ground lead, artificial ground, counterpoise or tune transmitter or antenna tuner for maximum field strength. Check for floating RF. Use 100 KHz to 500 MHz.



MFJ-802B
$49.95
Ship Code A

40" Balanced Dipole Field Strength Meter

MFJ-802B, $49.95. Sensitive telescoping 40-inch balanced *dipole* is ground independent and reduces influence of surroundings. Big *3-inch* meter. Sensitivity control lets you handle milliwatt to kilowatt signals. 1/4" phone jack for MFJ-802R remote RF sensing head (pictured inset). 2⅝Wx4Hx1½D in.

MFJ-802BR, $34.95. Read your field strength remotely where you can control your transmitter or rotate your beam. Requires shielded two conductor cable (not included). 2⅜Wx3⅝Hx1D in.

MFJ-802BX, $74.90, MFJ-802B field strength meter & MFJ-802BR, remote sensor combination. *Saves $!*

Telescoping Whip Field Strength Meter

MFJ-801
$29.95
Ship Code A

Take *quick* field-strength readings with this compact telescoping whip field strength meter. 1¾ inch meter. Sensitivity control. 20 inches (extended) monopole. Finger contact on side increases sensitivity when needed. 2⅜x3⅝x1 inches.

MFJ Compact HF, VHF, UHF SWR/Wattmeters

MFJ-860
$59.95
Ship Code A

MFJ-862
$69.95
Ship Code A

MFJ-864
$99.95
Ship Code A

This MFJ Cross-Needle SWR/wattmeter covers HF thru VHF -- 1.8-60 MHz, 144 MHz, and 440 MHz bands -- for only 99.95!

MFJ-864, $99.95, *Cross-Needle* Meter reads forward and reflected power and SWR *simultaneously* and features separate HF and VHF/UHF directional couplers, each with its own SO-239 connectors.

This lets you connect your HF and VHF/UHF (1.8-60, 144, and 440 MHz bands) transceivers at the same time. You can then monitor SWR and power of either transceiver at the flick of a switch. Others have a single set of connectors -- you have to plug and unplug to use separate HF or VHF rigs.

Power ranges: 30/300 watts forward and 6/60 watts reflected. Each power range for each band is individually calibrated. Schottky diodes are used for best accuracy.

Single knob operation makes it easy to use and the meter is lighted for easy reading. Meter uses 12 VDC or 110 VAC with optional adapter, MFJ-1312D, $15.95.

The all metal cabinet has a tough vinyl cladding. You won't find a tougher, longer lasting finish anywhere. **MFJ-864** measures a compact 7¼ Wx2½Hx2¼D inches.

MFJ-862, $69.95, similar to MFJ-864 but covers 144/220/440 MHz. 30/300 Watts forward, 6/60 Watts reflected ranges. 5¾x 2½x2¼ in. Has one sensor for all 3 bands.

MFJ-860, $59.95, similar to MFJ-864 but for 1.8-60 MHz only. Push button selects 30/300 Watts forward, 6/60 Watts reflected. Compact 4½x2¼x3 inches.

MFJ *GrandMaster*™ SWR/Wattmeter Series

GrandMaster™ SWR/Power Meters are the Cadillacs of ham radio! If you will not settle for less than the best accuracy and precision these *GrandMasters*™ are for you.

You get a large 3¼x1¼ inch precision illuminated meter for easy wide-angle viewing. A highly visible black and red meter scale on a bright white background makes it quick and easy to read SWR, forward or reflected power. Lamp requires 13.8 VDC or 110 VAC operation.

A functional and simple front panel layout lets you select power ranges, bands or make SWR readings intuitively.

The *GrandMaster*™ series feature an SWR scale that extends the full view of the meter. 3:1 SWR is centered at mid-scale to give you precision, wide-range measurements.

All GrandMasters™ feature peak and average, forward and reflected power readings and have selectable power ranges.

Each *GrandMaster*™ is housed in an all metal cabinet with rubber feet and protected by durable speckled black paint. A designer injection molded grey front panel perfectly matches any transceiver. 7½Wx3⅛Hx4¼D inches.

Air dielectric SO-239 connectors with gold plated center pins gives superb performance to beyond 525 MHz.

GrandMasters™ are precisely factory calibrated for accurate measurments.

Choose from four MFJ GrandMasters™

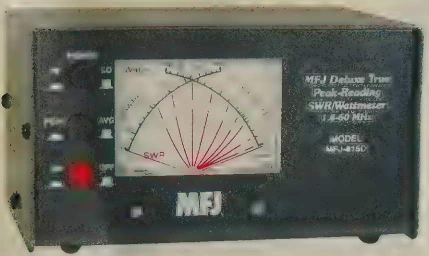
MFJ-870, $79.95. HF, covers 1.6 to 60 MHz. 30, 300, 3000 Watt power ranges.

MFJ-872, $79.95. HF/VHF, covers 1.8 to 200 MHz. 5, 20, 200W power ranges.

MFJ-873, $79.95. VHF/UHF, covers 125-525 MHz. 5, 20, 200W power ranges.

MFJ-874, $109.95. HF/VHF/UHF, covers 1.8-525 MHz. 5, 20, 200W power ranges.

1.8-60 MHz SWR/Wattmeter
with TrueActive™ Peak Reading circuit



MFJ-815D
$89.95
Ship Code A

- **Covers 1.8-60 MHz**
- **LED Backlighted lamp**
- **Large 3" Cross-Needle Meter**
- ***True Active* Peak Reading Circuit**

MFJ-815D reads *true-peak* or average power on a large illuminated three-inch Cross-Needle Meter.

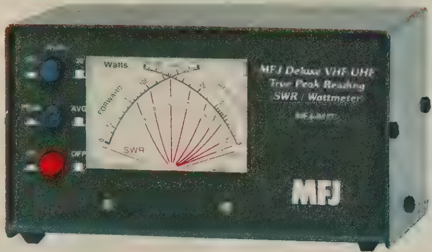
Its *TrueActive*™ peak reading circuit gives you an incredibly accurate SWR and power reading in SSB and CW over a wide frequency range.

The Cross-Needle Meter reads SWR and *true peak* average, forward and reflected power *simultaneously -- all in a single glance.*

You get Frequency coverage from 1.8 to 60 MHz. Has mechanical adjustment for accurately zeroing the meter.

Continues right . . .

VHF/UHF SWR/Wattmeter
with TrueActive™ Peak Reading circuit



MFJ-817C
$99.95
Ship Code A

Like MFJ-815D but for 144/220/440 MHz, VHF/ UHF bands. LED backlight.

Reads SWR and *true peak*/average forward and reflected power simultaneously, all in a single glance!

Has two ranges: 300/30 Watts and 60/6 Watts *simultaneously*. SWR 1:1 to 8:1.

MFJ-815D Continued from left . . .

Push button selects range, meter lamp on/off and peak for SSB or average for CW operation. SO-239 Connectors.

MFJ-815D has 3000 and 300 Watts forward and 600/60 Watts reflected power ranges. Read SWR from 1:1 to 8:1.

LED Meter lamp uses 12 VDC or 110 VAC with optional MFJ-1312D, $15.95.

TrueActive™ Peak Reading Circuit can use 9 Volt battery.

All metal black aluminum cabinet measures 6Wx3½H x4½D inches.

VHF SWR Wattmeter plus Field Strength

MFJ-812B
$39.95
Ship Code A

MFJ-812B is the world's most popular -- and most affordable -- VHF SWR/Wattmeter. Has a built-in field strength meter. Covers 2 Meters and 220 MHz. Reads forward and reflected power in two ranges -- 30 or 300 Watts.

Reads SWR from 14 MHz through 220 MHz. Also reads relative field strength from 1 to 220 MHz. Has binding post for field strength antenna. Black. 4½Wx2¼Hx3D inches.

Econo HF SWR/Wattmeter

MFJ-816
$39.95
Ship Code A

MFJ-816 HF SWR/ Wattmeter lets you read forward and reflected power on two scales -- 30 and 300 Watts -- and SWR from 1.8 to 30 MHz. Toroid current pickup gives uniform sensitivity. Easy push-button operation. Sturdy black aluminum cabinet. SO-239 connectors. 2-color meter scale. 4½Wx 2¼Hx3D inches -- makes it ideal for portable use.

High-accuracy MFJ Digital SWR/Wattmeter, 1.8-54 MHz, 1500 Watts

MFJ-826B
$179.95
Ship Code B

MFJ
DIGITAL SWR / WATTMETER
MODEL MFJ-826B
MODE
PEAK
ALARM
POWER

MFJ's *high-accuracy* digital SWR/Wattmeter/Frequency Counter measures up to 1500 Watts.

You get three high-resolution ranges with accuracy in each range, 1.8 to 54 MHz!

True peak or average forward and reflected Watts, SWR and frequency can be simultaneously displayed.

You can also select auto-ranging *bargraph modes* to display forward *and* reflected power or forward power *and* SWR *twin* bargraphs or SWR only bargraph. Frequency, SWR and forward power are also displayed numerically.

PeakHold™ feature freezes the highest forward power displayed bar segment for one second.

These digital-analog displays make it *visually* easy to tune antenna tuners, amplifiers and transmitters.

You get three high-resolution forward/reflected power ranges that are automatically selected: a *true QRP* range (25 Watt full scale), a mid-range (250 Watts full scale) and a high-range (1500 Watts full scale). Each range has excellent resolution.

MFJ's *TrueActive*™ peak reading circuit gives you *true* peak or average power on all modes.

Built-in frequency counter gives any transmitter digital frequency readout in continuous carrier mode. Perfect for older and QRP rigs such as MFJ-9420 travel radios and MFJ-9340 *QRPCubs*™ kits and wired transceivers.

All information is displayed on a big 2-line, 16- character, high-contrast *backlit* LCD display.

Use 12 VDC or 110 VAC with optional MFJ-1312D, $15.95. Attractive all metal black cabinet measures 6½Wx2⅝Hx6D in.

Digital and Cross-Needle SWR/Wattmeter

MFJ-828
$229.95
Ship Code B

MFJ-828 has *ALL* of the features of the MFJ-826B 1.8-60 MHz, 1500 Watts *high-accuracy* digital SWR/Wattmeter/Frequency Counter . . . ***PLUS . . .*** it has a large, lighted *Cross-Needle SWR/ Wattmeter* and *Amplifier Bypass Control*™ (protects amplifier during high SWR events), and *Control Relay* with normally open and closed connections that toggles when SWR is above a pre-set limit. Field-upgradeable firmware.

MFJ-844 VHF/UHF SWR Mobile Power Meter

MFJ-844
$69.95
Ship Code A

MFJ-844 covers 144 and 440 MHz. Insertion loss is 0.3 dB or lower with 50 Ohm impedance. SO-239 connectors.

Its tiny size lets you put it just about anywhere in your operating position. 3¾Wx3H x1¼D inches.

Handles 200 Watts and measures SWR and Power in three power ranges: 15W, 60W, and 200W.

A multi-colored white, orange, and black meter face makes for easy reading in quick glances. Extra large, highly visible meter. Die-cast metal, quality connector.

Compact Cross-Needle SWR/Wattmeters

MFJ
FORWARD
REFLECTED
SWR

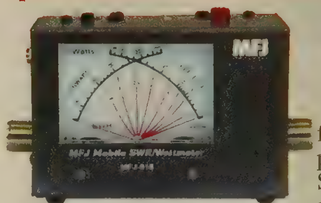
MFJ-822 or
MFJ-842
$59.95
Ship Code A

Compact HF/VHF and VHF/UHF SWR/ Wattmeter. **Has** huge 3" Cross-needle meter. Read forward/reflected power and SWR simultaneously.

Perfect for mobile or portable operation. Two selectable power ranges, built-in meter light (+12 VDC). SO-239 connectors. 3¼Wx3¼Hx3¼D in.

MFJ-822 covers 1.8-200 MHz, 30 or 300 Watts. MFJ-842 covers 140-525 MHz, 15 or 150 Watts.

Ruggedized flat Mobile/ portable SWR/Wattmeter



MFJ-818
$79.95
Ship Code A

MFJ's flat, compact SWR/Wattmeter is *plenty rugged* to take the abuse of *brutal* mobile or portable operation. Easily mounts on dash for easy viewing. Flat mount on wall/shelf in shack for best view angle. Meter is fully enclosed in a strong aluminum case with just the scales exposed. Only two small switches slightly protrude so there's little to break.

Simultaneously read SWR/forward/ reflected power on this full size 3-inch lighted *Cross-Needle* Meter. Use 12 VDC for meter lamp or plug into cigarette lighter with **MFJ-5510, $9.95**. 30/300 Watt ranges, 1.8-30 MHz, SO-239. Tiny all-metal cabinet has rubber feet. 5Wx3Hx2D inches.

MFJ Cross-Needle SWR/Wattmeters

MFJ-883
(125-525 MHz) pictured.

MFJ-883
$89.95
Ship Code A

You get a 3-inch precision illuminated *Cross-Needle meter* for easy wide-angle viewing. Read SWR, forward power and reflected power simultaneously in a single glance!

Three-color scale gives you improved readability and reliability. LED backlight gives excellent night vision. Requires 13.8 VDC or 110/VAC operation. Each unit is precisely factory calibrated for accurate measurements. Air-Dielectric SO-239 connectors with gold plated center pins give superb performance to beyond 525 MHz.

A functional and simple front panel layout lets you select power ranges, bands, or make SWR readings intuitively.

Four models to choose from . . .

MFJ-880, $89.95. HF, covers 1.6 to 60 MHz, Power range 0-2000 Watts in 3 ranges: 20/200/2000 Watts.

MFJ-882, $89.95. HF and VHF. 1.8 to 200 MHz, power range of 0-200 Watts in three ranges: 2/20/200 Watts.

MFJ-883, $89.95. VHF and UHF, 125 to 525 MHz, power range 0-200 Watts in three ranges: 2/20/200 Watts.

MFJ-884, $109.95. HF/VHF and UHF, 1.8 to 525 MHz, three power ranges: 2/20/ 200 Watts. Separate HF and VHF/UHF power sensors with SO-239 connectors.

Each *GrandMaster*™ is housed in an all-metal cabinet with rubber feet and protected by a durable speckled black paint. A designer injection molded grey front panel perfectly matches any transceiver.

Measures 5½Wx3⅛H5D inches.

Flat Mount 1.8-60 MHz *Mobile* SWR/Wattmeter

MFJ
MFJ-819
Peak Reading SWR/Wattmeter

MFJ-819
$159.95
Ship Code A

Just 1⅝" thick -- easily mounts on your dashboard for easy viewing. Flat mount on wall or shelf in your ham shack for best viewing angle.

Remote sensor with 25 feet thin, flexible cable lets you place sensor and coax out-of-the-way. Handles full 1500 Watts, 1.8-60 MHz. LED lighted Cross-Needle meter.

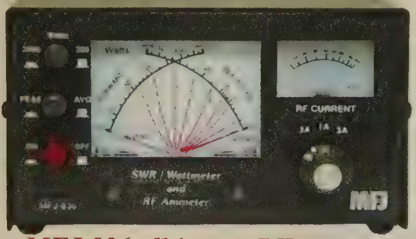
Active electronics lets you read *true* peak or average power in two power ranges. Has "High SWR" LED.

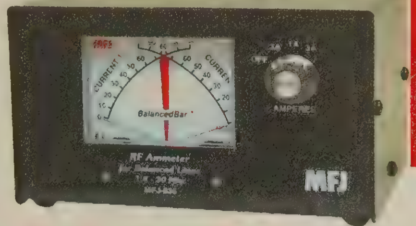
Flat-Mount SWR/Wattmeter measures 5Wx3¼H x1⅝D inches; remote sensor is a tiny 3½Wx2¾H x2¾D inches. Use internal (not included) 9V battery or 12 VDC.

MFJ *in-line* Calibrated *RF Ammeters*

. . . for tuning your antenna tuner/xmtr/amp for maximum radiated power . . . for determining antenna feedpoint impedance. . . for comparing antennas and tuners . . . for trouble shooting . . . checking for changes

RF Ammeter
AMPERES
MFJ





MFJ-834 Coax In-Line Calibrated RF Ammeter

MFJ-834
$79.95
Ship Code A

Connect the MFJ-834 *Coax In-Line* RF Ammeter between your antenna and tuner/ transmitter/amplifier and measure antenna feedline current in 3 calibrated ranges.

Use it . . . for *tuning* your antenna tuner/ transmitter/amplifier for maximum radiated power … for *determining* antenna feedpoint impedance… for *comparing* antennas and tuners … for *trouble shooting* . . . and for *checking* for changes.

Tuning for *maximum* feedline current for any given antenna *always* gives maximum radiated power!

Any adjustment -- transceiver or amplifier tuning/loading controls, antenna tuner settings, whatever -- that increases feedline current improves power transfer and gives you a stronger radiated signal.

Radiated power increases rapidly because power increases as the square of the current.

Minimum SWR *does not* always mean maximum radiated power -- your tuner or lossy coax may be dissipating power -- and you may not get peak output power even if your tuner or amplifier is properly tuned.

Use the MFJ-834 to determine best antenna tuner settings and to compare various tuners.

Calculate antenna *feedpoint impedance* by dividing your applied power by square of feedpoint current.

Continued right

Continued from left

Your antenna can change when you apply power -- insulators break down, traps heat up, capacitors leak -- and your feedpoint impedance may be drastically different from your SWR Analyzer measurements.

MFJ RF ammeters are rugged, read accurately over 1-30MHz in three *linear* ranges (.3, 1, 3 Amps) and barely perturb the antenna.

Large 3-inch lighted meter. Use 12 VDC or 110 VAC with MFJ-1312D, $15.95. SO-239 connectors. 6Wx3½Hx4½D inches.

MFJ-834H. $89.95. Like MFJ-834, but 3, 10, 30 Amps *high current* ranges.

MFJ-836 all-in-one RF Ammeter/SWR/Wattmeter

MFJ-836
$139.95
Ship Code A

The MFJ-836, $139.95 is an *all-in-one* RF Ammeter/SWR/Wattmeter! You can quickly determine feedpoint impedance and monitor antenna system for detrimental changes under power.

Read RF current in three calibrated ranges -- 1, 3, 10 Amperes. A large 3-inch lighted easy-to-read *Cross-Needle* meter lets you read SWR, forward (300/3000W) and reflected power (60/600W) *simultaneously*.

MFJ's exclusive *TrueActive*™ circuit gives you *true* peak or average power readings. SO-239 connectors. Use 9 Volt battery and/or 12 VDC or 110 VAC with MFJ-1312D, $14.95. 6Wx3½Hx4½D inches.

MFJ-836H, $149.95. Like MFJ-836 but 3, 10, 30 Amps *high current* ranges.

MFJ-835 Balanced Line RF Ammeter

MFJ-835
$129.95
Ship Code A

***How** do you detect imbalance in open-wire or ladder line?* **By** measuring and comparing each feedline wire current -- your feedline is balanced if the currents are equal.

The MFJ-835, $129.95 *BalancedLine RF Ammeter*™ is *two* identical calibrated RF ammeters using an MFJ *Cross-Needle* meter.

Feedline currents are *simultaneously* displayed on separate calibrated scales in three ranges (.3, 1, 3 Amperes).

Balance is clearly revealed on MFJ's exclusive *BalancedBar*™ -- when currents are balanced, the dual needles *cross in the center* -- no matter the actual current.

If the needles cross within the vertical *BalancedBar*™ the balance is within 10%. If not, you know which line is unbalanced and by how much.

Equal currents in the feeder wires minimize feedline radiation and reduces pattern distortion, RFI, TVI and wasted power. You could lose up to 10% of your power.

Imbalance is due to feedline not being perpendicular to antenna, if one side runs close to metal or is shorter or closer to ground.

The MFJ-836 helps you solve all your unbalanced problems.

Heavy-duty 5-way binding posts for feedlines. Use 12 VDC or 110 VAC with MFJ-1312D, $15.95. 6Wx3½Hx4½D in.

Calibrated *Clamp-On* RF Ammeter

MFJ
MFJ-854
RF Current Meter

MFJ-854
$119.95
Ship Code A

MFJ-854 *Clamp-On* RF Ammeter quickly snaps over wires and cables to measure RF currents flowing in antenna elements, radials, ground wires and on outside of coax.

Tune counterpoises, radials and ground systems. Balance your radials. See how much signal is radiating from your antenna, feedline or ground wire. Study/optimize your antennas for peak performance. Find current peaks/ nulls on antennas/ feedlines. Plot current profile, measure and tweak current flow at each antenna element in phased arrays.

Determine your antenna feedpoint impedance, radiated power, power losses and efficiency. Track down RFI-causing currents on coax shield, rotator cable, guy wires, house wiring, telephone and television cables.

Has five *calibrated* ranges to 3 Amperes including sensitive 30 mA range with linearity compensation to assure accuracy at low currents. It's sensitive enough to use an MFJ SWR Analyzer as the source to drive your antennas.

Less than 1 mA on super-sensitive *Variable Range* yields usable meter deflection for tracking RFI on household wiring and cables.

1-30 MHz plus. ½ inch diameter cables. 2 ½ Wx5½Hx1½D in.

Calibrated *mini Clamp-On* RF Ammeter

MFJ-853
$59.95
Ship Code A

MFJ-853 calibrated *mini Clamp-On* RF ammeter accurately measures RF current in antenna elements, radials, ground wires, coax shield. *Non-metallic* lightweight case minimizes electric field disturbances for accurate readings -- clamp on mobile whip/ vertical. Adjust for maximum radiated current. Determine radiated power/losses. Profile its current distribution -- it's maximum at base and tapers to zero at end.

Use like MFJ-854 to do many of its tasks. 0.3, 1, 3 Ampere ranges. Small 2¼Wx3¾Hx1D in.

MFJ-853H, $69.95. Like MFJ-853, but has 3, 10, 30 Ampere high-current ranges.

MFJ Super-Sensitive *RFI Sniffer*

MFJ-805
$99.95
Ship Code A

MFJ-805 works with mobile installations, ferreting out alternator hash, ignition pulses and microprocessor noise on feedlines and power leads. Isolate cables *picking up* RFI and know when you've suppressed the problem. Easy-to-use. Clamp current transformer over suspected cable or wire (up to ¼ in. dia.) to detect RFI causing common-mode currents. 2¼Wx4¾H x1D inches fits in shirt pocket. Use 9 Volt battery. Usable VLF to VHF. Gain adjustable over 50 dB range.

MFJ *Giant* Cross-Needle Peak-Reading SWR/Wattmeters

Extra-Large $3^5/_8$ inch meter . . . Read forward/reflected power and SWR at a glance . . . Individual Meter scales for each power range . . . LED backlighting . . . Three-color scale . . . True directional coupler . . . Low bias Schottky Diode Detectors for increased linearity from low power to high power . . . .

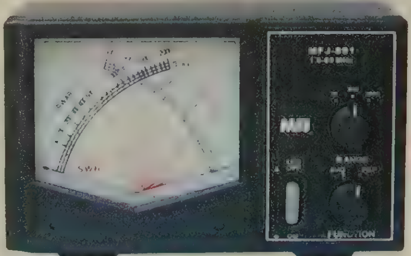
These new MFJ *Giant* SWR/Watt-meter series have large $3^5/_8$ inch Cross-Needle SWR/Watt-meters that have a three-color scale for improved readability.

These wattmeters simultaneously display forward/reflected power and SWR all *at a glance!* They each have individual meter scales for each power range that increase reading accuracy.

A *True™Active peak-reading circuit* is included for SSB operation (MFJ-891 only). LED backlighting provides smooth and even illumination for easy night viewing.

Low bias Schottky diode detectors increase linearity from low power to high power readings.

A true directional coupler for increased accuracy gives solid readings over the entire frequency range, HF to UHF. DC grounded antenna connectors prevent electrostatic build up.



MFJ-891
$109.95
Ship Code A

SWR less than 1.2:1. Meter accuracy is +/- 10% of full scale or better. Has lighted meter on/off switch.

These wattmeters are extra sturdy with large rubber feet and a rugged metal and a *designer-styled* plastic injection molded front panel. Handsome black speckled finish and gray molded front panel aesthetically complements today's modern transceivers. Quality SO-239 connectors. $7^1/_4$Wx$4^1/_2$Hx$4^1/_2$D inches.

Select from the following frequency range models:

MFJ-891, $109.95.

Covers 1.6 to 60 MHz. Handles 2 kW in three ranges: 20/200/2000 Watts. MFJ-891 has precision *TrueActive*™ PEP Circuit for SSB operation.

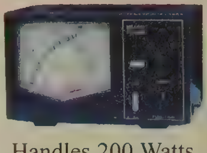
MFJ-892, $109.95.

Covers 1.6 to 200 MHz. Handles 200 Watts in three ranges: 2/20/200 Watts.

MFJ-893, $109.95.

Covers 125-525 MHz. Handles 200 Watts in three ranges: 2/20/200 Watts.

MFJ-894, $129.95.



Two input sensors. Covers 1.6-60 MHz and 125-525 MHz. Incorporate two RF sensors for HF or VHF/ UHF operation. Handles 200 Watts in three ranges: 2/20/200 Watts.

MFJ *Rhinos*™ 2, 3, 4 Position Antenna Switches

Built tough, built to last and built to work for a long lifespan!

Gold-plated flange and connector contacts . . . Rock-Solid die-cast design . . . Low VSWR . . . Low insertion loss . . . Handles power up to 2 kW . . . DC to 3 GHz . . . Eight models to choose from . . .

MFJ's *Rhinos*™ tough, durable 2, 3, and 4 position antenna switches have gold plated flanges and connector contacts that provide low VSWR and low insertion loss.

A rock-solid, sturdy, die-cast design gives up to an excellent 70 dB isolation. These switches are build like a rhino, tough inside and out! A superior internal design lets them work for you for a long lifespan.

Rhinos™ handle power up to 2 kW. Operating frequency ranges from DC to 3 GHZ with less than a 1.2:1 SWR. A super compact size lets you put them anywhere. Handy premade mounting holes.

Eight models to choose from . . .

MFJ-2702, $32.95. 1 GHz, 2 positions, SO-239. $2^3/_4$Wx$3^1/_2$Hx$1^3/_4$D inches.

MFJ-2702N, $42.95. 3 GHz, 2 positions, N-type. $2^3/_4$Wx$3^1/_2$Hx$1^3/_4$D inches.

MFJ-2703, $64.95. 800 MHz, 3 positions, SO-239. $3^1/_8$Wx$3^1/_2$Hx$1^3/_4$D inches.

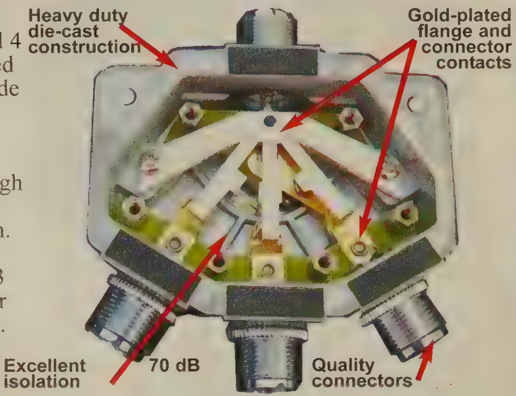
MFJ-2703N, $74.95. 1.5 GHz, 3 positions, N-type. $3^1/_8$Wx$3^1/_2$Hx$1^3/_4$D inches.

MFJ-2704, $89.95. 900 MHz, 4 positions, SO-239. $4^1/_4$Wx4Hx$1^3/_4$D inches.

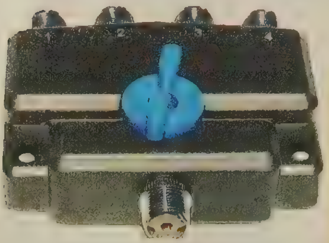
MFJ-2704N, $99.95. 1.5 GHz, 4 positions, N-type. $4^1/_4$Wx4Hx$1^3/_4$D inches.

MFJ-2704M2, $99.95. 900 MHz, 4 pos., Inputs are SO-239, outputs are two each: SO-239, N-type. $4^1/_4$Wx4H x$1^3/_4$D in.

MFJ-2704N2, $99.95. 1.5 GHz, 4 pos., Inputs are N-type, outputs are two each: SO-239, N-type. $4^1/_4$Wx4H x$1^3/_4$D inches.


Heavy duty die-cast construction
Gold-plated flange and connector contacts
Excellent isolation
70 dB
Quality connectors

Inside View of MFJ-2703, $64.95



MFJ-2704
$89.95
SO-239,900 MHz
Ship Code A

MFJ-2704N
$99.95
N-type, 1.5 GHz
Ship Code A

MFJ-2704M2
$99.95
239/N, 900 MHz
Ship Code A

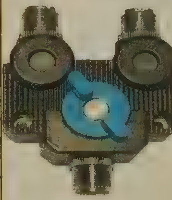
MFJ-2704N2
$99.95
N/239, 1.5 GHz
Ship Code A

MFJ *Rhino*™ Series Antenna Switch Specifications

Model No.	MFJ-2702	MFJ2702N	MFJ-2703	MFJ2703N	MFJ-2704	MFJ2704N	MFJ2704M2	MFJ2704N2
Price	$32.95	$42.95	$64.95	$74.95	$89.95	$99.95	$99.95	$99.95
Useable Freq.	1 GHz	3 GHz	800 MHz	1.5 GHz	900 MHz	1.5 GHz	900 MHz	1.5 GHz
Power Rating								
DC-30 MHz	2 kW	2 kW	2 kW	2 kW	1.5 kW	1.5 kW	1.5 kW	1.5 kW
30-200 MHz	1 kW	1 kW	1 kW	1 kW	1 kW	1 kW	1 kW	1 kW
200-500 MHz	500 W	500 W	500 W	500 W	500 W	500 W	500 W	500 W
500-900 MHz	250 W	250 W	250 W	150 W	250 W	250 W	250 W	250 W
.900-1.5 GHz				150W		150 W		150 W
Insertion Loss								
DC-500 MHz	>= .05dB	>= .05dB	>= .05dB	>= .05dB	>= .10dB	>= .10dB	>= .10dB	>= .10dB
500-900 MHz	>= .10 dB	>= .10 dB	>= .10 dB	>= .10 dB	>= .20 dB	>= .20 dB	>= .20 dB	>= .20 dB
.900-1.5 GHz		>= .15 dB		>= .15 dB		>= .30 dB		>= .30 dB
1.5 - 3 GHz		>= .20 dB		>= .20 dB				
Output Isolat.								
DC-500 MHz	<= 70 dB	<= 70 dB	<= 70 dB	<= 70 dB	<= 60 dB	<= 60 dB	<= 60 dB	<= 60 dB
500-900 MHz	<= 60 dB	<= 60 dB	<= 60 dB	<= 60 dB	<= 55 dB	<= 55 dB	<= 55 dB	<= 55 dB
.900 - 1.5 GHz		<= 55 dB		<= 55 dB		<= 50 dB		<= 50 dB
1.5 - 3 GHz		<= 50 dB		<= 50 dB				
VSWR								
DC-500 MHz	>= 1.05	>= 1.05	>= 1.15	>= 1.10	>= 1.1	>= 1.15	>= 1.15	>= 1.15
500-900 MHz	>= 1.1	>= 1.10	>= 1.25	>= 1.15	>= 1.25	>= 1.20	>= 1.20	>= 1.20
.900 - 1.5 GHz		>= 1.15		>= 1.20		>= 1.25		>= 1.25
1.5 - 3 GHz		>= 1.20		>= 1.25				
Grounded Unused Output	NO	NO	YES	YES	YES	YES	YES	YES

MFJ-2703
$64.95
SO-239
800 MHz
Ship Code A

MFJ-2703N
$74.95
N-type
1.5 GHz
Ship Code A



MFJ-2702
$32.95
SO-239,
DC-1 GHz
Ship Code A

MFJ-2702N
$42.95
N-type,
3 GHz
Ship Code A

Lightning Protected Heavy Duty Coax Switches

MFJ gives you a center ground position, automatic grounding of unused positions, handles 2.5 kW PEP and works to over 500 MHz!

MFJ-1704
\$79^{95}
Ship Code A

Lightning Surge Protection

Super!
MFJ-1704 and MFJ-1702C
are lightning protected and have *an exclusive* center ground position -- connects antennas to ground and disconnects your radio from use.

MFJ-1702C
\$39^{95}
Ship Code A

MFJ-1702
\$19^{95}
Ship Code A

Mount this 4-position SO-239 switch on your operating desk and you'll have more than the convenience of being able to instantly select any of four antennas or the center ground position -- you'll also get the replaceable lightning surge protection device that helps protect against distant lightning induced surges and static. Handles a full 2.5 kW PEP. Extremely low SWR. Isolation is rated from better than 60 dB at 30 MHz to better than 50 dB isolation at 500 MHz, negligible insertion loss, 50 Ohms.

MFJ-1704N, \$84.95. Like MFJ-1704, with "N" type connectors.

MFJ-1702C 2-position Coax Switch has a new lightning surge protection device that helps protect against distant lightning induced surges and static. MFJ-1704 and MFJ-1702C have a (sets antenna to ground) center ground position and handles 2.5 kW PEP, 1 kW CW. It has better than 60 dB isolation at 300 MHz and better than 40 dB at 450 MHz. 50 Ohms. Unused terminals are automatically grounded for static and RF protection. It has less than 0.2 dB insertion loss and SWR below 1.2:1. The MFJ-1702C has a heavy cavity type construction and uses SO-239 connectors. Has handy mounting holes. Measures 3Wx2Hx2D in.

MFJ-1702CN, \$44.95. Like MFJ-1702C, with "N" type connectors. Covers DC to 1.1 GHz.

MFJ-1702, \$19.95. Like MFJ-1702C, less lightning surge protection, center ground.

MFJ Six Position Antenna/Transceiver and Antenna Switches

MFJ-1700C
\$119^{95}
Ship Code B

New and Improved MFJ-1700C!

MFJ-1700C, \$119.95.

The new MFJ-1700C adds lightning surge protection and boasts a much better isolation between connectors and wires internally.

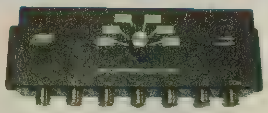
This high power Antenna and Transceiver Switch lets you select one of six antennas and one of six different transceivers in any combination. Now you can have dedicated radios and antennas doing select ham radio activities.

You can also plug in an antenna tuner, SWR wattmeter, other electronic equipment. Has quality SO-239 connectors.

You are always connected to the antenna and radio selected. MFJ-1700C handles 2 kW PEP SSB, 50-75 Ohm loads.

Unused terminals are automatically grounded. SO-239 connectors. Covers 1.8 to 30 MHz. Measures 4$^{3}/_{4}$W6$^{1}/_{2}$Hx3D in.

6 Position HF Antenna Switch



MFJ-1701
\$79^{95}
Ship Code B

Select one of six antennas. Covers 1.8-30 MHz. Unused terminals are automatically grounded. Quality SO-239 connectors for hook-up to your antennas. Handles 2 kW PEP SSB, 1 kW CW, 50-75 Ohm loads. Measures 10Wx3Hx1$^{1}/_{2}$D in.

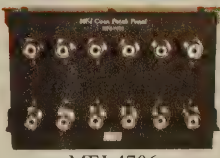
MFJ 12-Position Coax Patch Panel

MFJ Coax Patch Panel connects devices with virtually no loss, feed-through or cross-talk . . .

Provides 12 *Teflon*$^{(R)}$ SO-239 coax feedthru barrel connectors to patch 12 coax fed devices together with short coax jumpers.

This extremely high performance and versatile *military/professional* patch panel approach has virtually no loss, no feed-thru and no cross-talk -- depends only on the quality of your coax -- and has far better performance than any switching system.

To use, connect your coax fed devices (rigs, antennas, SWR/Wattmeters, tuners, amplifiers, preamps, switches, and other electronic equipment) to coax connectors inside the patch panel.



MFJ-4706
\$79^{95}
Ship Code A

Each device is then available on the front panel and can be connected to any other device using a short coax patch cable. All can be used at the same time.

Cables enter through side or rear on either side. Has wing nut for ground. Side/back mounting tabs let you mount to a wall, under your table, or on ham station desk.

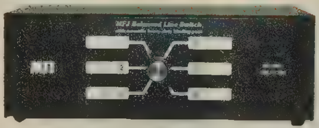
Compact 9Wx5Hx4D inches fits just about anywhere.

MFJ-4704
\$69^{95}
Ship Code A

MFJ 8-Position Coax Patch Panel

MFJ-4704, \$69.95. Similar to MFJ-4706 but for **8** coax-fed devices.

MFJ Balanced line antenna switch



MFJ-1706
\$109^{95}
Ship Code B

Use one of six different balanced feedlines 1.8 to 30 MHz. Handy, versatile 5-way binding posts. Handles 1500 Watts PEP SSB. Silk-screened label positions. Aluminum, 9Wx3$^{1}/_{4}$Hx6$^{1}/_{2}$D".

MFJ-1706H, \$119.95, similar, but has high-voltage glazed ceramic feedthrough insulators instead of 5-way binding posts.

MFJ-1706 back

MFJ-1706H back

MFJ HF, VHF and UHF BiasTee DC Power Injectors

MFJ-4116
\$29^{95}
1-60 MHz
Ship Code A
MFJ-4119
\$39^{95}
1-440 MHz

Send up to 1 Amp DC/50 Volts DC through coax cable to power your electronic equipment.

Use with your automatic antenna tuner, remote antenna switch, antenna relay box, etc. without running separate cables.

Requires one MFJ-4116 on each end of coax to *inject* DC power and to *retrieve* DC power.

MFJ-4116 covers all HF bands and Six Meters, 1-60 MHz.

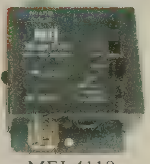
MFJ-4119 covers HF, VHF and UHF. Both have SO-239 connectors. Measures a super-compact 23/4Wx21/2Hx11/4D inches.

MFJ-4116P, \$54.95, pair of MFJ-4116.

MFJ-4117, \$34.95. Like MFJ-4116, but with switch to turn remote equipment on/off.

MFJ-4118, \$44.95. Like MFJ-4116, but provides both +12VDC and -12VDC. Has three switched position settings: +12VDC, OFF and -12VDC.

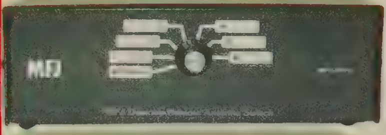
MFJ-4117
\$34^{95}
Ship Code A



MFJ-4118
\$44^{95}
Ship Code A

MFJ Desktop or Remote Antenna Switches

Desk/Remote 6/4 pos. *Antenna* Switches



(back of unit)

MFJ-4716
$89⁹⁵
Ship Code B

Use this MFJ-4716 *Six-position Antenna Switch* on your desk or place it out-of-way under your desk or in another room and use a remote control.

A simple rotary switch lets you select 1 of 6 antennas. All unused inputs are grounded. You can connect a sense line to your transceiver so when it's off, all inputs are automatically grounded.

In the OFF position, all inputs are grounded or control is transferred to the **MFJ-4716RC, $39.95,** Remote Control.

Ultra-fast gas discharge tube *lightning surge protector* protects transceiver and safely shunts static electricity and lightning induced surges safely to ground. Does not protect against a direct lightning hit.

Super easy-to-use -- just one simple rotary switch. There are no complicated computer buttons to learn or microprocessors to fail or generate RFI that could mask rare DX.

SO-239 connectors. 1500 Watts/50-75 Ohm load, 1-60 MHz. Useable to 150 MHz. Connects to MFJ-2716RC remote control with common CAT 5 cable, not included (available from MFJ, see below.). Use 12 VDC or 110 VDC with MFJ-1312D, $15.95. 8Wx$2\frac{3}{4}Hx4\frac{1}{4}$D inches. For indoor use, not weather protected.

MFJ-4716RC, $39.95. 6-position. Remote Control for MFJ-4716. CAT 5 cable not included. Tiny $2\frac{3}{4}$Wx$3\frac{3}{4}$Hx1D inches.

Desktop/Remote 6 & 4 position *Antenna/Transceiver* Switches

(back of unit)

MFJ-4726
$159⁹⁵
Ship Code B

Place this MFJ-4726 *Six-Position Antenna/ Transceiver Switch* on your desk or place it out-of-way under your desk or in another room and use a remote control. Select one of six antennas and one of six transceivers in any combination with just 2 *easy-to-use* rotary switches.

Plug in antenna tuner, SWR/Wattmeter or other into its common ports, so it is always connected to the antenna and radio selected.

All unused inputs are grounded. When rotary switches are in OFF position, all inputs are grounded or control is transferred to **MFJ-4726RC, $59.95,** remote control.

Automatically grounds all inputs when you turn off transceiver.

***Lightning** surge protector* protects transceivers and shunts surges to ground. Does not protect against a direct lightning hit.

SO-239s. 1500 Watts into 50-75 Ohm load 1-60 MHz. Useable to 150 MHz. Use CAT 5 cable for remote control, not included (Buy from MFJ, see below). Use 12 VDC or 110 VAC with MFJ-1312D, $15.95. For indoors, not weather protected. 8Wx5Hx$4\frac{1}{4}$D".

MFJ-4726RC, $59.95. 6-position. Remote control for MFJ-4726. Use CAT 5 cable, not included.

4-Position Desktop/Remote Antenna *Switch*

MFJ-4714, $79.95. Like MFJ-4716, but switches between four antennas.

MFJ-4714RC, $39.95. 4-position Remote Control for MFJ-4714, 4 antenna desktop/remote antenna switch.

Cat-5 Cable for Antenna Switches

MFJ-5262, $6.95. 7' CAT-5 cable with connectors.
MFJ-5265, $23.95. 25' CAT-5 cable/connectors.

4-Position Desktop/Remote Ant./Xcvr *Switch*

MFJ-4724, $139.95. Like MFJ-4726, but switches between four antennas/transceivers.

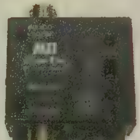
MFJ-4724RC, $59.95. 4-position Remote Control for MFJ-4724. Tiny $2\frac{3}{4}$Wx$3\frac{3}{4}$Hx1D inches.

Cat-5 Cable for Antenna Switches

MFJ-5262, $6.95. 7' CAT-5 cable with connectors.
MFJ-5265, $23.95. 25' CAT-5 cable/connectors.

MFJ 2-Position *Remote* Antenna Switch

MFJ Remote Antenna Switch
MFJ-4712
MFJ
ANTENNA
ANTENNA 1



MFJ-4712
$79⁹⁵
Ship Code B

This MFJ 2-position *remote* antenna switch uses a *single* coaxial feedline to feed two antennas, DC power and control signals -- no power or control cable needed.

It's perfect for switching from HF to VHF -- no more unplugging coaxial lines from your antennas just to switch frequency -- a quick switch does it for you.

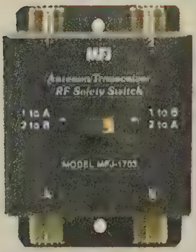
MFJ-4712 covers 1.8 MHz-150 MHz and handles 1500 Watts. Impedance is 50-75 Ohms.

The compact 4Wx$2\frac{5}{8}$Hx$1\frac{1}{2}$D inch *Outside Switch Box* is fully enclosed and weather protected. It also has three quality *Teflon*® SO-239 connectors for transmitter, antenna one and antenna two.

It uses a Stainless steel $1\frac{1}{2}$" tall bracket with a U-bolt for masts up to $1\frac{1}{2}$ in. O.D. *Inside remote control unit* is a tiny $2\frac{1}{4}$Wx$2\frac{1}{2}$Hx$1\frac{1}{4}$ inches.

The MFJ-4712 is protected by MFJ's famous one year *NoMatterWhat*™ limited warranty.

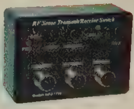
Rig/Antenna RF Safety Switch



MFJ-1703
$29⁹⁵
Ship Code A

MFJ-1703 keeps your expensive transceivers safe from transmitting into nothing! No more burning up your radio because you forgot to change your antenna switch! 1.8 to 30 MHz. Your transceiver is always hooked up to one of two antennas! Connect two rigs and two antennas and switch to different combinations. 300 watts PEP SSB, 150 watts CW. Handy mounting tabs. All metal, switches 50-75 Ohm unbalanced lines.

MFJ RF Sense T/R Switch



MFJ-1708
$79⁹⁵
Ship Code A

Automatic T/R Switch senses transmitted RF and switches your antenna from receive to transmit using a relay. Shorts your receiver antenna input to ground to protect your receiver. Provides an auxiliary contact closure to ground during receive (opened in transmit) for muting speaker, an "On-Air" sign or other use. Instead of using RF sense to switch the antenna, a control line input lets your key/keyer or PTT line switch the antenna. Adjustable time delay circuit gives you delayed switching. All modes. 200 Watts SSB PEP. Measures 4Wx$2\frac{5}{8}$Hx$1\frac{1}{2}$D inches. 12 VDC or 110 VAC with MFJ-1312D, $15.95.

Automatically Switch your Rig between 2 Antennas

MFJ-1707
$89⁹⁵
Ship Code A

There are times when you want to use separate transmitting and receiving antennas but your transceiver has only one antenna port. For example, an efficient 75M vertical for transmitting and a separate low noise Beverage for receiving. With an MFJ-1707, simply connect your transceiver, transmit and receive antennas. As soon as you key your rig, the MFJ-1707 RF sensing circuitry instantly switches your rig from receiving antenna to transmitting antenna. Your amplifier control output of your transceiver can also automatically switch antennas. Adjustable delay prevents transmit antenna from instantly switching to receive. Auxiliary contact closure to ground during receive. All modes. 200W SSB PEP. 4Wx$2\frac{5}{8}$Hx$1\frac{1}{2}$D". Use 12 VDC or 110 VAC with MFJ-1312D, $15.95.

MFJ Dry Dummy Load with Precision SWR/Wattmeter

MFJ-267
$\$159^{95}$
Ship Code B

World's most versatile 1.5 kW dummy load has a *built-in* true peak reading SWR/Wattmeter that you can switch and use independently!

You'll find tons of uses!

Tune up your transceiver, linear amplifier or antenna tuner into a safe 50 Ohm dummy load at *full power*.

Then instantly switch to your antenna and monitor SWR, forward and reflected power.

Use for testing/tuning transmitters, transceivers, amplifiers, tuners, baluns, transformers, filters, matching networks, coax, stubs, transmission lines & antennas.

1500Watt Dry Dummy Load

The 50-Ohm dry dummy load works DC to 60 MHz.

SWR is below 1.3:1 at 30 MHz. Can handle 100 Watts for ten minutes or 1500 Watts for ten seconds. Comes with power derating curve.

MFJ
Watts
FORWARD
REFLECTED
SWR
HIGH
LOW
PEAK
AVG
ON
OFF
Dummy Load/Wattmeter
MODEL: MFJ-267

Cross-Needle SWR/Wattmeter

Extra-large three-inch lighted Cross-Needle meter reads SWR (1:1 to 8:1), forward and reflected power *simultaneously*.

Reads *true peak* PEP or average power on 300/3000 Watts forward and 60/600 Watts reflected power ranges 1.8-54 MHz.

High accuracy comes from a carefully designed directional coupler, an accurate active-peak reading circuit and a precision d'Arsonval meter movement.

RF tight perforated aluminum cabinet. $4^1/_2$Wx$3^1/_2$Hx$10^1/_2$D inches. Uses 12 VDC or 120 VAC with MFJ-1312D, $15.95.

MFJ NoMatterWhat™ Warranty

MFJ-267 is protected by MFJ's famous *No Matter What*™ one year limited warranty. MFJ will repair or replace your MFJ-267 dummy load *no matter what* for one full year.

MFJ Dry *"Handy"* Loads . . . 3 GHz or 500 MHz

3 GHz, 200W Dry Load

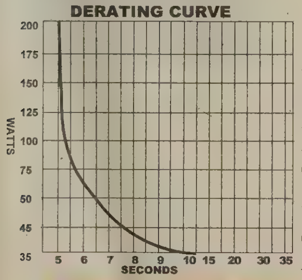
MFJ-262BN
$\$69^{95}$
With N male
DC to 3 GHz
Ship Code A

MFJ-262B
$\$59^{95}$
With PL-259
DC to 1 GHz
Ship Code A

The heart of these 50 Ohm dry dummy loads are the resistor inside.

Made with copper flanges and beo ceramic for incredibly low thermal resistance and capacitance.

Frequency ranges from DC to 3 GHz on MFJ-262BN (N male connector) with an SWR of less than 1.2:1. DC to 1 GHz with SO-239 connector.



Handles up to 200 Watts for 5 seconds and 35 Watts continuously.

MFJ Handy 3 GHz Dry Dummy loads have abuilt-in male connector.

500 MHz, 100W Dry Load

Connects directly to your rig or test equipment with a PL-259. Use with your MFJ-259B *SWR Analyzer*™ or MFJ-261N for MFJ-269. No patch cable used, reduces SWR. Finned aluminum, air-cooled heatsink. Handles 100 Watts peak, 15 Watts average. 50 Ohms. DC to 500 MHz with less than 1.15:1 SWR. $1^5/_8$ round by 3" long. **MFJ-261N, $37.95** Like MFJ-261, but has N-male connector.

MFJ-261
$\$27^{95}$
With PL-259
DC to 500 MHz
Ship Code A

Continued from left . . .

loads have abuilt-in male connector.

Choose between MFJ-262B, $59.95, PL-259 or MFJ-262BN,$69.95, Type N connector for direct connection to your transmitter.

A heavy duty, black, finned aluminum construction and air-cooled heatsink will give you years of dependable use.

MFJ-262B and MFJ-262BN measure a super-compact $1^3/_4$Wx$4^3/_4$Hx$1^1/_2$D inches.

MFJ wide-band 3GHZ, 300 Watt *Dry Dummy Load*

MFJ
MFJ 3GHz Dummy Load
MFJ-263

MFJ-263
$\$99^{95}$
Ship Code B

MFJ-263 wideband dry dummy load uses a specially designed metal-film non-inductive terminating resistor which allows it to cover a very wide frequency range from DC to 3 GHz.

That also produces an incredibly low and flat SWR across the entire frequency spectrum.

MFJ-263 will handle a full 300 Watts for 10 seconds and it will handle 125 Watts continuously, making it an excellent dummy load for transceiver and other gear testing.

A high-quality *Teflon*(R) insulated low-loss N-type connector is used to insure the absolute minimum SWR possible.

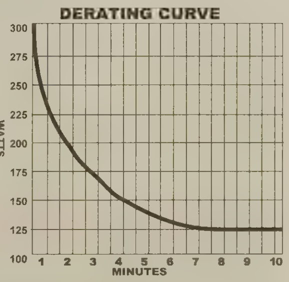
The MFJ-263 has a custom heavy-duty finned heatsink that spans the entire length of the cabinet and keeps operation safe and cool.

Strong, lightweight, all-aluminum construction is super-durable and will give years of continuous testing service.

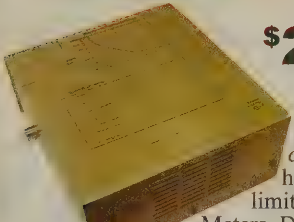
A derating curve is permanently silk-screened into the bottom chassis for quick and easy reference. See below right.

Measures $10^3/_4$W x$2^1/_4$Hx$5^1/_4$D inches. Weighs just 3.5 pounds.

MFJ-263 is protected by MFJ's famous 1 year *No Matter What*™ limited warranty. We'll repair or replace (our option) your dummy for one full year from your purchase date.



MFJ 2500W *fan-cooled* Dry Load



MFJ-265
$\$219^{95}$
Ship Code C

MFJ's 2500 Watt *fan cooled* load handles legal limit amps, DC- 6 Meters. Dissipates 2500 W average power for one minute on, ten minutes off, 300W continuous. SWR less <1.25 to 1 below 30 MHz, <1.4 from 30-60 MHz. Four 50 Ohm non-inductive resistors have an incredibly high energy density of 7000 joules per cubic inch per second with a voltage gradient of 10 kV per inch! Detailed power curve silk-screened on cabinet. 12 VDC or 110 VAC. $8^1/_4$Wx4Hx $9^1/_2$D in. SO-239s. 5 pounds.

MFJ Switchable RF Dummy Load

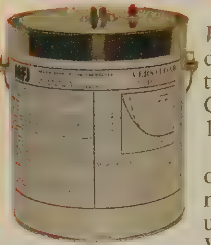
MFJ
Switchable Dummy Load
MODEL MFJ-251

MFJ-251
$\$149^{95}$
Ship Code B

MFJ-251 gives you *five dummy loads in one box!* Select from 16.6, 25, 50, 100 or 150 Ohms with a front panel switch. MFJ-251 simulates high impedances and low impedances with an SWR of 3:1, 2:1 and 1:1 so you can test and calibrate your wattmeters and test SWR accuracy. At 50 Ohms it handles 300 Watts for 30 seconds with an SWR below 1.1:1 to 30 MHz. Covers Dc to 60 MHz. Has SO-239 connector. Compact $4^1/_2$Wx $2^1/_4$H x$6^1/_2$D inches. Optional 12 VDC/110 VAC adaptor, MFJ-1312D, $15.95.

MFJ *UHF/VHF/HF Dummy Loads*

MFJ *VersaLoad™* kW Dummy Load



MFJ-250X

VersaLoad™ KW dummy load lets you tune up fast! Run 1KW CW or 2 KW PEP for 10 minutes.

Run 1/2 KW CW or 1 KW PEP for 20 minutes. Run continuous duty with 200 Watts CW or 400 W PEP. Derating curve. Quality 50 ohm non-inductive resistor.

MFJ-250X
$49.95
Ship Code A

Use transformer oil (not incl.). Low VSWR to 400 MHz. Under 1.2:1 to 30 MHz. 1.5:1 for 30-300 MHz. 2:1 for 300-400 MHz. SO-239, safety vent with cap. Carrying handle. 7 1/2H6 5/8W in.

MFJ-250, $69.95. Includes transformer oil (no PCB). Ship Code D.

Industrial Grade Transformer Oil

MFJ-21, $29.95. 1 gal. industrial grade transformer oil, (no PCB). Ship Code C.

Dry 1.5 kW *UHF/VHF/HF* Load

1.5KW HF-UHF
DRY DUMMY LOAD
1 - 650 MHz
MFJ
MODEL
MFJ-264
MFJ ENTERPRISES, INC
STARKVILLE, MS USA

Ham radio's most versatile 50 ohm dummy load. Works with all radios 160 Meters to 650 MHz and from QRP to the full 1500 watt legal limit.

MFJ-264
$74.95
Ship Code A

SWR below 1.3 to 650 MHz and below 1.1 at 30 MHz. Handles 100W for 10 minutes, 1500W for 10 seconds.

Strong lightweight aluminum construction. Compact 3Wx3H x9D inches.

Has MFJ's famous *No Matter What™* one year limited warranty.

MFJ-264N, $84.95. Similar to MFJ-264 but with type "N" connector.

Dry 300 Watt VHF/HF Dummy Load

300 WATTS
DRY DUMMY LOAD
MFJ ENTERPRISES, INC
STARKVILLE, MS USA
MFJ
INPUT
1 - 650 MHz

Air cooled, non-inductive resistor is housed in a perforated metal housing.

Has SO-239 connector. Full load for 30 seconds. Silk-screened derating curve to 5 minutes.

MFJ-260C
$39.95
Ship Code A

Handles 300 Watts. SWR below 1.1:1 to 30 MHz, 1.5:1 from 30 to 650 MHz. A super compact 2 1/4x2 1/4x7 inches.

MFJ-260CN, $49.95. Similar to MFJ-260C but with type "N" connector.

Coax Patch Cables

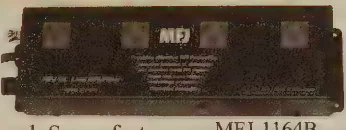
MFJ-5803, $6.95. 3-foot RG-58 coaxial line with PL-259 connectors.

MFJ-5806, $9.95. 6-foot RG-58 coax.

MFJ-5809, $11.95. 9-foot RG-58 coax.

Also available in RG-8X and RG-213.

MFJ AC Line RFI Filter



Filters and reduces AC power line RFI, hash, noise, transients, surges generated by computers, motors, RF transmitters, static/lightning by 30 db and up to 60-80 dB with a good earth ground. Super fast, *nano-second* overvoltage protection.

MFJ-1164B
$79.95
Ship Code B

Provides inductive isolation, capacitive decoupling, RFI rejection, overvoltage protection of both common mode and differential signals. Rejects/shunts undesired signals to ground. Four 3-wire, 15 Amp, 120 VAC outlets spaced for large adapters. 25 Amps/3000 Watts maximum. Fused, has 5 1/2 ft. cord, wing nut for ground. Mounting holes. 12Wx3 1/2Hx2D inches.

MFJ Transceiver Surge Protector

MFJ-1163
$69.95
Ship Code B

Protects your expensive transceiver/equipment from damaging power surges. Capacitive decoupling and *ultra-fast* 120 VAC/25A/3000 Watt MOVs protection. Four 3-prong grounded AC outlets.

MFJ Remote A/C On/Off Switch Controller

MFJ-1172
$139.95
Ship Code A

New!

Turn ON or OFF your rig and accessories *remotely* with this MFJ remote AC switch controller. Operating your station remotely can be hazardous! Your radio could get stuck on transmit or your computer locked up.

Turn off or just reset everything with the MFJ-1172 remote AC controller. Installation is easy. Simply plug in your equipment to be controlled in the AC socket of the MFJ-1172 and the DC control line from your remote control equipment such as the MFJ *Remote Shack™*. MFJ-1172 requires control voltage from 4.5 VDC to 12 VDC. Output is 110 VAC at 15 Amps. 64 inch cord and AC plug. Compact 3Wx4Hx2 1/8D inches. AC input 110V.

MFJ-1174
$159.95
Ship Code A

New!

MFJ-1174, $159.95.

Like MFJ-1172, but for 220 VAC input, output is 220V/15A. Has 6-15P plug.

Read Voltage 95-135 Volts with MFJ-850B

MFJ-850B, $24.95. Color coded scale lets you read voltage from 95-135 Volts, 2% accuracy. Built-in AC socket, so you don't lose the outlet. 2 1/4Wx2 1/4Hx1 1/2D inches. It's perfect for the ham shack and motorhomes!

New!

MFJ Ultrasonic Receiver with parabolic reflector *pinpoints* power line noise

MFJ-5008
$179.95
Ship Code B

HF and VHF operation can be affected by noise which makes it hard to hear weaker stations and adds to your fatigue.

Often, the noise is coming just outside your doorway, from the power lines. Power companies are usually very willing to help out with noise issues, but not all companies have the necessary equipment or trained personnel to properly locate nearby noise sources.

MFJ-5008 aids you in locating the noises generated by corona discharge and arcing components. It's an acoustic receiver tuned to the ultrasonic range of 40 KHz -- lets you hear ultrasonic noises generated by arcing connections and corona discharge.

An 18-inch diameter plastic dish gives a narrow beamwidth to pin-point noise sources to less than 12 inches at 50 feet. A short focal point makes the overall front-to-back depth just seven inches. The handle is mounted close so the center of gravity reduces fatigue on the hand from the weight pulling down in front.

An ultrasonic transducer mounted inside a sturdy metal support helps reduce dish bending and warping. Targeting holes are built into the dish and aligned with the beam -- helps to pinpoint the noise sources on the pole.

Receiving electronics are mounted on the handle for convenient operation. Use 9-Volt battery (not included). Receiver gain lets you receive noise generated from power lines from several hundred feet away. A 3.5 mm jack lets you use stereo/mono headphones. 20 1/2Wx19 1/2Hx7D inches. Weighs just 2.5 lbs.

MFJ-392B, $24.95. MFJ's Communication Headphones are the perfect companion for your MFJ-5008.

Not only can you use the MFJ-5008 to find power line noise sources, you can also listen to a wide range of nature sounds! In the ultrasonic range bats, birds, and insects can easily be heard.

MFJ *SoundGUN™* Professional Parabolic Audio Receiver

New! **MFJ-5007, $199.95.** MFJ *SoundGUN™* Professional Parabolic Audio Receiver, like MFJ-5008 but for audio and includes MFJ-392B. Used worldwide for professional listening and surveillance, field audio for sports broadcasting, eavesdropping, police and espionage, this technology has always been reserved for law enforcement and scientists until now. Take it to the racetrack or a local ballgame, listen to the birds singing and talking in your backyard or in the forest -- other animal noises may also be detected. It may not be used to violate the privacy rights of others. Consult your state laws regarding your intended use.

Safeguard expensive gear from static electricity and lightning surges

MFJ Lightning Surge Protectors handle 400 Watts PEP or 1500 Watts PEP

400Watts!
MFJ Guardian Angel Lightning Surge Protector
MFJ
MFJ-270

MFJ-270
$19⁹⁵
Ship Code A

Safeguard your expensive equipment from static electricity and lightning induced surges on 50 Ohm coaxial line.

MFJ's *Guardian Angel*™ Lightning Surge Protectors has an *Ultra-fast* gas discharge tube that safely shunts up to 5000 amps of peak impulse current harmlessly to an independent ground. SWR less than 1.1:1. Less than 0.1 dB loss. Use up to 1000 MHz. MFJ-270 handles 400 W PEP. MFJ-272 handles 1.5 kW PEP. MFJ-270 and MFJ-272 *do not* protect against a direct lightning hit.

MFJ-270, $19.95. SO-239 to SO-239.
MFJ-270MF, $27.95. SO-239 to PL-259.
MFJ-270N, $27.95. Low-loss N-connectors.
MFJ-97, $7.95. Replacement gas discharge tube for MFJ-270.

MFJ-272
$29⁹⁵
Ship Code A

MFJ-272, $29.95. SO-239-SO-239.
MFJ-272N, $34.95. N Connectors.
MFJ-272MF, $34.95. SO-239 to PL-259.
MFJ-97H, $17.95. Replacement Gas Discharge tube for MFJ-272.

1.5kWatts
MFJ Guardian Angel Lightning Surge Protector
MFJ
MFJ-272MF

MFJ-272MF pictured.

Reduce Harmonics, Avoid TVI with MFJ Filters

Low Pass TVI Filter Handles Full Legal Power

MFJ-704
$59⁹⁵
Ship Code A

MFJ LOW PASS FILTER
OUTPUT
MFJ
Model MFJ-704
MFJ ENTERPRISES, INC
STARKVILLE, MS
USA

MFJ-704 suppresses TVI, RFI, telephone and other interference by reducing unwanted harmonics going to your antenna.

At the same time your HF signal passes on through with low loss so you can snag that rare and exciting DX!

If your harmonics are causing TVI problems, an MFJ-704 can keep your neighbors happy while you have fun with ham radio!

Nine Chebyshev poles, MFJ's exclusive *TeflonDielectric Technology*™ capacitors, Hi-Q inductors, ground plane shielding and an RF tight cabinet give you excellent TVI and RFI protection.

These exclusive *Teflon Dielectric Technology*™ capacitors give you extremely low loss and eliminate voltage breakdown and capacitor heating -- even at full 1500 Watts with a 2:1 SWR load!

Handles full legal power from 1.8-30 MHz. SWR below 1.3 to 30 MHz into 50 Ohms. Attenuates above 40 MHz.

Measures a compact 3x3x9 inches. Handy mounting tabs.

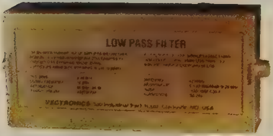
200W Low Pass TVI Filter

MFJ-702B
$34⁹⁵
Ship Code A

MFJ
MFJ-702B
LOW PASS TVI FILTER

Be a good neighbor. Plug this Low Pass TVI filter between your transmitter and antenna or tuner and reduce your transmitter harmonics by 50 dB! Harmonics could be the source of interference to your neighbor's TV, radio, VCR, telephone, etc. SWR is below 1.5 to 30 MHz into 50 Ohms. Perfect for barefoot transceivers -- handles 200 Watts with less than 0.5 dB insertion loss. Attenuation is 50 dB at 54 MHz. SO-239 connectors. 3x2x1.5 inches.

MFJ 2500 Watts Low Pass TVI Filter

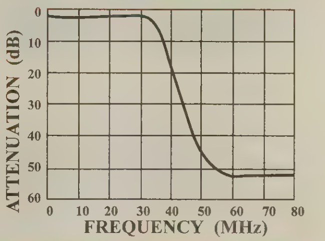


MFJ-705
$139⁹⁵
Ship Code B

Suppress TV interference at the source with the MFJ-705 *Low Pass Filter*. Use between Transmitter and Antenna or Tuner. Reduces TV interference (TVI) radiated by transmitters operating below 30 MHz. Suppresses harmonics appearing in the TV bands. Additional attenuation to TV IF frequencies above 40 MHz. Low loss to 30 MHz. 9-pole inverse Chebyshev.

SPECIFICATIONS:
Passband: 0-30 MHz
Cutoff freq: 35 MHz
Attenuation: 52.25 MHz (Channel 2 Video), -60 dB, Worst case at 65 MHz, -60 dB
Power Capacity: 2500 W Key Down - 50% Duty
Impedance: 52 Ohms
Insertion Loss: 0.25 dB @ 30 MHz.
Size: 9½Wx4¼Hx2⅛D inches.

MFJ-705 Frequency Response

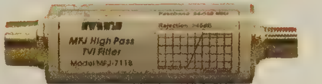


MFJ RFI Free Choke Kit for RFI Suppression

MFJ-701
(Set of 4)
$24⁹⁵
Ship Code A

It's easy to eliminate common RFI problems. Simply wind the offending cable around MFJ's RFI suppressing toroid to get rid of RFI. Four square ferrite toroids are formulated especially for eliminating RFI from 0.5 to 200 MHz. Wind on all kinds of cable, computer ribbon, TV coax, power, telephone, etc.

High Pass Filter for TV sets



MFJ-711B, $29.95. MFJ's *ShieldBreaker*™ high pass filter effectively suppresses annoying TVI! Wipe out TVI caused by 2-way, broadcast, commercial, amateur and CB radios operating below 30 MHz. Use between cable/antenna and TV/VCR. 75 ohm cable.Type F male/female connectors.

MFJ-711B
$29⁹⁵
Ship Code A

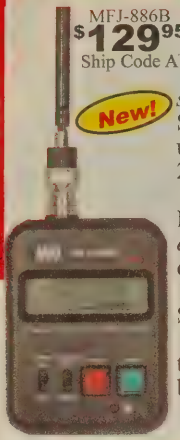
Ferrite RFI Suppression Chokes

Ferrite RFI Suppression Chokes

These RFI snap-on Chokes are selected for RFI suppression. Install on DC power line to keep ignition noise from your mobile rig and amplifier. Remove RF on cables and wires to your radio station. Isolate RFI on feedline from your station. Two-piece design, snap and lock securely around your cable. Install end to end along rigid cable or loop multiple turns with smaller soft cable. Select from four sizes, .25" ID to .75" ID.

Model # - Price each	Model# - Price 4-Pk	Hole Size	Typical Cable Use
MFJ-700A, $2.75	MFJ-700A4, $10.95	.275 inches diameter	RG58/59/6U/8X
MFJ-700B, $3.50	MFJ-700B4, $13.95	.402 inches diameter	RG213/6X
MFJ-700C, $4.95	MFJ-700C4, $18.95	.528 inches diameter	RG11/8U
MFJ-700D, $5.95	MFJ-700D4, $22.95	.750 inches diameter	LMR600
MFJ-700P9, $32.95	Combination Pack of 9;	consists of 4-A, 2-B, 2-C and 1-D RFI chokes.	

Pocket-size Frequency Counter *300 Hz - 2.8 GHz*



MFJ-886B
$^{\$}129^{95}$
Ship Code A

MFJ-886B covers 300 Hz to 2.8 GHZ with 1 Hz resolution and four *selectable* gate speeds. Super compact handheld unit measures just $2^{3}/_{8}$Wx$3^{1}/_{4}$Hx$1^{1}/_{8}$D inches.

This truly *pocket-sized* MFJ-886B has a large *easy-to-read* 2Wx$^{3}/_{4}$H 10-digit backlit LCD and a 11-segment RF Signal Strength Bargraph.

Low power consumption with internal lithium battery (800 mAh).

Has low battery indicator. Run for about 12 hours on a single charge! Auto-sleep mode.

MFJ-886B includes a built-in lithium battery, 12 VDC, 1A power adaptor/charger for 110 VAC and a telescoping antenna with BNC connector.

MFJ-886B has a 50 Ohm amplifier for 1 MHz to 3 GHz operation and a 1M Ohm amplifier for 10 Hz to 50 MHz. Has 45 degree flip stand for easier viewing.

Has highly sensitive input with a time base at < 10 PPM.

Hold button locks the MFJ-886B display and will continually display the last frequency received. There is also an automatic hold mode for locking in on special frequencies.

Pocket-size Function Generator

MFJ-5000
$^{\$}99^{95}$
Ship Code A

This unique unit is the only compact, battery-operated function generator designed for travel or bench use. Based on an XR-2206 integrated circuit, it provides square, triangular, and sine waves continuously from 1 Hz to well over 150 KHz in 3 ranges. 4Hx3Wx1D inches. Frequency range switch, external power jack, 5-way binding posts. Use 9V battery.

Professional Function Generator

MFJ-5004
$^{\$}149^{95}$
Ship Code A

Gives precision sine, square and triangular wave forms from 1 Hz to 1 MHz in 6 decade ranges. Amplitude adjustable 0-12 volts peak-to-peak. DC offset is adjustable -6 to +6 VDC. Output is short circuit protected with output impedance of 400 Ohms. Sturdy black all metal cabinet. 110 VAC.

1-50 MHz Precision Antenna Phase Meter

MFJ-222
$^{\$}149^{95}$
Ship Code A

MFJ-222 uses low power, high-speed dual comparator circuit to allow *precision* phase measurements 1-50 MHz. A circuit indicates if unknown phase lags or leads the reference signal. Signals used for measurement can come from an antenna analyzer such as MFJ-269 or any other generator that will supply at least 1 Volt peak output into the load. It has a built-in switchable 50 Ohm load (250 mW max) so the use of an external load and BNC TEE is not needed in most tests. MFJ-222 will read the frequency of the signal so generators with only a coarse or no frequency readout can even be used. Set-up is simple. Plug in the signal generator output to IN, connect the Reference OUT to the input of the network and the output of the network to UNKNOWN IN. Turn it on and read the phase shift and the frequency. A bright two line LCD display allows precision readout of the phase from -180 to +180 degrees without interpreting an analog meter or guessing at the phase polarity. With low power components, it will operate many hours on a single 9V battery or with optional AC adapter **MFJ-1312D, $15.95**. Compact 4¼Wx4¾Hx2D inches.

81 dB Step Attenuator

MFJ-762
$^{\$}89^{95}$
Ship Code A

This will be your most useful ham shack accessory! 50 ohms.

Usable to 500 MHz. 250 milliwatt maximum input. BNC connectors. Shielded stages. Connect between receiver and antenna and use an S-meter as a precision calibrated field strength meter.

Prevent receiver blocking, cross-modulation. Determine gain and loss. Ideal for fox hunting. Evaluate linearity.

Measure input and output level differences. Isolate circuits.

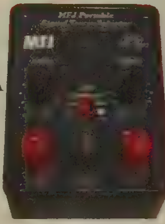
Extend the range of your sensitive equipment. $6^{1}/_{2}$Wx$2^{1}/_{2}$Hx$1^{1}/_{2}$D inches.

2-Meter FM Signal Analyzer

MFJ-224
$^{\$}179^{95}$
Ship Code A

MFJ's handheld Two Meter *FM Signal Analyzer*™ lets you measure signal strength with over 60 dB dynamic range and measure actual feedline loss in dB. Plug in any scope and your MFJ-224 becomes a service monitor! Lets you visually analyze modulation wave forms, audio distortion, noise and instantaneous peak deviation. Tune in any signal between 143.5 - 148.5 MHz. Built-in discriminator-meter function makes accurate tuning simple and easy. 4Wx$2^{1}/_{2}$Dx$6^{3}/_{4}$H". Use 9V battery.

MFJ *Portable Signal Tracer-Injector*



MFJ-5012
$^{\$}99^{95}$
Ship Code A

The MFJ Multi-purpose *Portable Signal Tracer-Injector* quickly finds defective stages in all kinds of signal amplifiers, radio receivers and transmitters.

Includes home theaters, hi-fi amplifiers, public address systems, guitar amplifiers, AM/FM/ TV transceivers, phones, scanners, shortwave, etc.

Use to find opens and shorts in cables and wires, identify and locate individual wires in multi-conductor cables.

Has an AM detector and variable gain audio amplifier. 3Wx4Hx1D inches.

Safely tune your amp with this MFJ *AmplifierSaver*™ Interface

MFJ-214
$^{\$}69^{95}$
Ship Code A

This lets you safely tune up your kilowatt linear amplifier at full peak power for best linearity. Keeps average power to a low, safe level to prevent overheating power supply stress.

Relieves temperature related stress on amplifiers, tuners, and dummy loads too.

It also can be used as a valuable diagnostic tool for tests of QSK systems, wattmeters, and more. Plugs into rig's CW key jack (for convenience you can use a "Y" connector).

Simply press the Pulse Tune button and tune your amplifier normally for maximum power output. Use 9V battery, not included.

MFJ Deluxe *AmplifierSaver*™

MFJ-216
$^{\$}79^{95}$
Ship Code A

The MFJ-216 Deluxe *AmplifierSaver*™ includes front panel adjustments of pulse rate and duty cycle.

Allows for easy performance testing of wattmeters, QSK systems and other electronic equipment.

Measures $3^{1}/_{2}$Wx$1^{1}/_{2}$Hx4D inches.

Tune-Up *Matchmaker*™

MFJ-212
$^{\$}99^{95}$
Ship Code A

Adjust your antenna tuner for 1:1 SWR without transmitting!

Avoids overheating/arcing caused by high SWR and long tune-ups.

Your *MatchMaker*™ inserts between transceiver and antenna tuner. Simply tune your transceiver to the desired frequency, then power-up the *MatchMaker*™. Then adjust your tuner for a null in the pulsing "white noise" in your receiver.

Automatic T/R switch bypasses MFJ-212 to prevent damage. Handles 300 Watts. Works with all radios, 160 through 6 meters. Measures a compact $3^{1}/_{3}$x$1^{1}/_{4}$x4 inches. Use MFJ-1312D, $15.95.

MFJ *High Current* DC Multi-Outlet Strips

Choose super heavy-duty 5-way binding posts AND/OR Anderson PowerPole® connectors

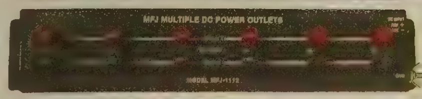
Provide *multiple* high current DC outlets for transceivers and accessories from your transceiver's main DC power supply – keeps you neat, organized and safe. Prevents fire hazards. Keeps wires from tangling up and shorting out. Outlets are fused/switched/RF bypassed.

MFJ *DC Multi-Outlets with versatile 5-way binding posts*

MFJ-1118
$84.95
Ship Code A

MFJ-1116
$59.95
Ship Code A

MFJ-1112
$44.95
Ship Code A



MFJ-1117
$64.95
Ship Code A

MFJ-1118, $84.95. Lets you power two HF and/or VHF rigs and six or more accessories from your transceiver's main 12 VDC supply. Two pairs of super heavy duty 35 amp 5-way binding posts connect your transceivers. Each pair is fused and RF bypassed. Handles 35 Amps total.Six pairs of heavy duty, RF bypassed 5-way binding posts let you power your accessories. They handle 15 Amps total, are protected by a master fuse and have an ON/OFF switch with "ON" LED light. Built-in 0-25 VDC voltmeter. Six feet super heavy duty eight gauge color-coded cable with ring tongue terminals. Binding posts are spaced for standard dual banana plugs. Heavy duty aluminum construction. 12½x2¾x2½ inches.

MFJ-1117, $64.95. For powering four HF/VHF radios (two at 35 Amps each and two at 35 Amps combined) simultaneously. Tiny 8x2x3 inches.

MFJ-1116, $59.95. Similar to MFJ-1118. No 35 amp posts. Has "ON" LED and 0-25 VDC voltmeter. 15 amps total.

MFJ-1112, $44.95. Similar to MFJ-1116. No on/off switch, LED, meter, fuse.

MFJ *DC Multi-Outlets with Anderson PowerPole® connectors*

Anderson PowerPole® is a registered trademark of Anderson Power Products.

Genderless, polarized and color coded connectors conform to ARES & RACES emergency 12V connector standard

Each *Anderson PowerPole®* outlet can carry up to 40 amps. You can fuse each outlet as needed to protect your accessories or transceiver. The main fuse is 40 amps.

The standard color coded fuses simply plug in from outside. They are widely available ATC/ATO automobile fuses and can be used for 6, 12, 24 VDC systems.

The heavy duty DC input cable is built-in – *you don't have to pay extra* just to use it! It's a high-current carrying capacity eight gauge, flexible, stranded, six foot (can be shorten) cable with 5/16 ring terminals. It's color coded Red and Black.

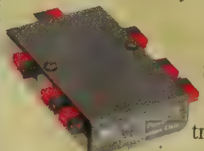
Extra *Anderson PowerPole®* connectors, contacts and fuses are included at *no extra cost*, unlike lesser competitive products.

A massive 0.062 inch thick double sided plated through PC board with wide traces is used. The current path has an equivalent current carrying capacity of an enormous 4 ounce trace.

RF-tight aluminum cabinet has mounting ears and ground post with wing nut.

MFJ *6-Way* Desk-Top DC Power Distribution Unit

Convenient planar design optimizes DC distribution on your desk or workbench



MFJ-1106
$34.95
Ship Code A

MFJ-1106 is an inexpensive, compact, and low profile DC distribution platform designed for your operating desk. Contains seven *Anderson Power Pole™* connectors all connected in parallel, permitting one DC input to be shared by six DC outputs. Includes seven sets of mating connectors for your cables. Any connector may be used as an input or output, and the total current carrying capability is 30-amps. 2¼Wx1Hx3¾D inches, not including *PowerPoles™* sticking out on 3 sides.

All PowerPoles®

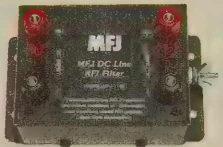
MFJ-1128
$104.95
Ship Code B

MFJ-1128, $104.95. 12 outlets. Factory installed fuses: three 1A, four 5A, four 10A, one 25A, one 40A. *Built-in 0-25 VDC Voltmeter.* ON/OFF switch controls outlet 4 through 12, handles 20 Amps total. Outlet 1, 2 and 3 are unswitched, handle 40 amps total. Includes 12 pair of *Anderson PowerPole®* 24 35A contacts, 10 fuses (2 each: 1,5,10,25,40A). 12Wx1¼Hx2¾D inches.

MFJ-1126
$84.95
Ship Code B

MFJ-1126, $84.95. 8 outlets. Factory installed fuses: two 1A, three 5A, two 10A, one 25A, one 40A. Includes 6 pair of *Anderson PowerPole®* 12 35A contacts and 5 fuses: (1 ea. 1,5,10,25,40). 9Wx1¼Hx2¾ inches.

MFJ DC Line RFI Filtered Outlet



MFJ-1142
$59.95
Ship Code A

MFJ-1142 is a compact, filtered DC outlet. Connects between rig and DC power supply to reduce RFI, hash, noise transients, motor noises, alternators or fuel pump whine, power windows, other motors and RF transmitters. For 12V or 24V DC power source. Heavy-duty 5-way binding posts and *Anderson PowerPoles*^(R) for input and output. 3Wx2¾Hx4¾D".

New! Four Connector *PowerPole™* Splitter

Gives one input and three outputs. Handles total 30 Amps. Input (30A) and each output is fused (25, 10, 5A) and has open fuse indicator. 2¾Wx3¼Hx1½D inches.

MFJ-1104
$29.95
Ship Code A

PowerPoles® AND 5-Way Binding Posts

MFJ-1129
$114.95
Ship Code B

MFJ-1129, $114.95. *Get the best of both connectors!* 10 outlets. Installed fuses: two 1A, three 5A, three 10A, two 25A, one 40A. Outlets 1, 2, 4-8 are *Anderson PowerPole®*. Outlet 3 is a 35A high current *binding post;* outlet 9, 10 are 15A *binding posts*. *Built-in 0-25 VDC Voltmeter*. ON/OFF switch for outlets 4-10, 20 amps total. Outlets 1, 2, 3 unswitched, handle 40 amps total. Includes 7 pairs of *PowerPole®* 14 35A contacts, 10 fuses (2 ea, 1,5,10,25,40). 12½Wx1¼Hx2¾D in.

MFJ-1124
$64.95
Ship Code B

MFJ-1124, $64.95. 6 outlets. Installed fuses: one 1A, one 5A, two 10A, two 25A, one 40A. Outlets 1-4 are *PowerPole®*. Outlets 5, 6 are 35A high current *binding posts*. Includes 4 pair *PowerPole®* 8 35A contacts, 5 fuses (1ea, 1,5,10,25,10) 8Wx1¼Hx2¾D inches.

Anderson PowerPole® with 35A contacts

MFJ-11C06, $6.95, 6 pairs.
MFJ-11C12, $13.95, 12 pairs.
MFJ-11C25, $25.95, 25 pairs.
MFJ-11C100, $99.95, 100 prs.
MFJ-7602, $16.95. Tool for crimping *Power-Poles®*.

Banana Plugs for binding posts

A. MFJ-7713, $5.95. 1 red, 1 black high current banana plug. *Solderless*, thumb Screw. Fits 10 to 12 gauge wire.

B. MFJ-7709, $6.95. High current *dual* banana plug, Black/Red polarity rings. *Solderless*, thumb screw. .75" standard spacing -- fit MFJ outlets and others with 10-12 gauge wire.

C. MFJ-7700P, $6.95. Six red and six black *solderless* banana plugs.

MFJ-11F20, $9.95. 10 ATO Fuse pack. 2 each: 1, 5, 10,25,40 amp.

MFJ-4416B *Super* Battery Booster

Keeps your transceiver operating at full efficiency and performance by eliminating low or marginal voltages in the mobile environment . . .

MFJ
POWER INPUT
POWER OUTPUT
MFJ Super Battery Booster

MFJ-4416B
$\$159^{95}$
Ship Code A

Today's compact 100-watt HF transceivers are designed to oper-ate from about 12-16 volts, with output signal distortion, output power problems, and transceiver reset often occurring when voltage drops below 12 volts.

In the mobile environment, low voltage is caused in two ways:

First - even low resistance DC wiring can result in a noticeable voltage drop. For a 100-watt transceiver with a 20-amp typical current requirement, just 1/10th of an ohm resistance in your DC cable and connectors results in a 2-volt drop!

And second - when you turn your car off, the battery voltage drops from around 13.8 volts to close to 12 volts after a short period of time. If you couple this with any voltage drop in the cables, you suddenly have a problem.

MFJ's Super Battery Booster eliminates low voltage problems by boosting input voltages as low as 9 volts up to the desired 13.8 volts at up to 25 amps peak with a typical efficiency of close to 90%.

It is compact at just $7^{3}/_{4}$Wx4Hx$2^{1}/_{8}$D" and lightweight at 1.3 lbs. And the MFJ-4416B *Super Battery Booster* is designed to be rugged, reliable, and easy to use.

MFJ-4416B includes *Anderson PowerPole*™ connectors and high-current 5-way binding posts for both the DC input and regulated output. An internal 30-amp input fuse protects the unit from excess output current demands.

There are also selectable limits on the minimum voltage that the unit will accept: 9-volts, 10-volts (default), and 11-volts. This protects you from over-discharging a battery and possibly damaging it. Also includes output over-voltage crow-bar protection should regulation be lost.

Two additional features offer ways to increase efficiency even more!

First, there is an RF sampling port which can be connected to your transceiver's transmission line with an **MFJ-7733, $6.95** UHF-T connector.

When this feature is enabled, the MFJ-4416B is bypassed unless RF is sensed so no regulator switching efficiency penalties are incurred during receive.

The second efficiency enhancement feature is a user-adjustable output voltage control which lets you set the output voltage anywhere between 12- and 13.8-volts.

When setting the output at 12-volts, input voltages greater than 12V will pass through, but the efficiency of the regulator is higher. And lower input voltage means your transceiver will run cooler!

Typically save over 30 watts in heat dissipation during transmit, and even 3-4 watts during receive. So it can actually be good to let the voltage sag to 12V, then let MFJ-4116B protect from lower voltages.

Battery Booster *Remote* Control

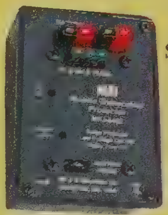
INPUT VOLTAGE
MFJ
OUTPUT VOLTAGE
Super Battery Booster
Remote Control

MFJ-4416BRC
$\$79^{95}$
Ship Code A

The MFJ-4416BRC gives you *full* remote control capability of your MFJ-4416B Super Battery Booster *plus* it allows you to monitor battery voltage and battery booster output voltage. You can place the battery booster near your battery or other convenient location.

MFJ-4416BRC lets you turn booster and has a low battery alert on/off. Front panel also features *boosting* and *low battery* LEDs. Four mounting holes make it easy to install. Just plug in Cat-5 cable to connect to battery booster. 5Wx2Dx3H inches.

Mobile Transceiver Protector



MFJ-4402
$\$79^{95}$
Ship Code A

MFJ-4402 protects your mobile rig from many unseen operating problems found in vehicles today.

A built-in surge protection diode reduces the chance a high voltage spike will damage your rig due to an alternator failure or jumping off from other vehicles, and it has reverse polarity protection.

Sagging voltages on your vehicle start-up can cause your radio to not power up correctly, to lose memory channels and possibly corrupting your service and set-up menus in your transceiver.

When your vehicle is shut off there are still many circuits that could have power on them, so issues like distorted audio, frequency shifting with modulation or no vehicle start-up can happen.

MFJ-4402 will cut your rig off if the voltage gets too low for proper vehicle operation.

A delay timer, which is controlled off of the ignition sense line insures that your rig doesn't turn on until the vehicle starts up and a normal voltage is reached.

MFJ-4402 connects to your rig with *Anderson PowerPoles*™ for high-current lines and a bayonet lug to the ignition sense line. A 30A (maximum) fuse protects for over-current or reverse voltages.

MFJ-4402 measures a compact $2^{7}/_{8}$Wx4Hx$1^{1}/_{2}$ inches that fits nicely into your vehicle installation.

MFJ-4403 Transceiver Voltage Conditioner

Protects against: reverse voltage, over-voltage, voltage transient, short circuits. Super noise and ripple filtering & power supply buffering. 100W SSB from your auto cigarette lighter socket!

MFJ
Voltage Conditioner
MFJ-4403
CHARGING
REVERSE POLARITY
POWER
ON
OFF

MFJ-4403
$\$119^{95}$
Ship Code A

MFJ-4403 *Transceiver Voltage Con-ditioner* provides reverse voltage, over-voltage, voltage transient and short circuit protection.

MFJ-4403 gives superb noise and ripple filtering and power supply buffering for your base, portable or mobile transceiver.

The MFJ-4403 really shines in mobile and portable operation where your non-ideal voltage source could cause extensive damage.

If you accidentally reverse your voltage connection, the MFJ-4403 protects your transceiver against instant destruction and alerts you with a bright warning LED. Once the DC polarity is corrected, the MFJ-4403 recovers and operates normally.

Heavy-duty *transient suppressor* handles peak currents up to 200 Amps -- protects your transceiver from vehicle and poorly regulated power supply start-up voltage spikes.

MFJ brings *high-end* automotive audio technology to ham radio!

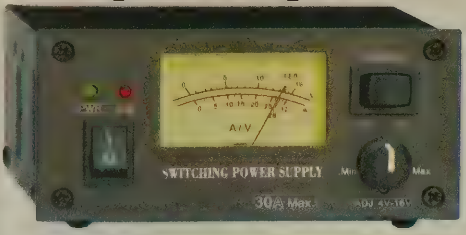
Four Farads of ultra high-value capacitors filters off virtually all power supply noise and ripple, and provides enough power supply buffering so that even underrated and marginal power supplies will run your HF transceiver.

For temporary mobile operation -- rental car, weekend trips, vacations, etc. -- the ultra high-value capacitors in the MFJ-4403 provide enough power supply buffering to let you run full 100 Watts *SSB* from your 10-15 Amp *cigarette lighter socket.*

Standard *Anderson Powerpole*™ connectors are used for the DC input and output. Compact 4Wx3Hx2D inches.

MightyLite™ 30A Meter Switching Power Supply

Super-Compact 5Wx2½Hx6D" with meter, adjustable voltage



MFJ-4230MV
$89.95
Ship Code B

The world's *most compact* switching power supply has a meter and adjustable voltage.

Just 5Wx2½H x6D", it weighs only 3 lbs. -- the perfect *pack-n-go* power supply for field day, DXpeditions, camping, hiking or for your next business trip or vacation to some far away place.

MFJ-4230MV gives 25 Amps continuously or 30 Amps surge at 13.8 VDC. The voltage is front-panel adjustable 4 to 16 V. MFJ-4230MV has a *selectable* input voltage: choose 120 or 240 VAC at 47-63 Hz.

A simple front-panel push-button switch lets you choose either Ampmeter or Voltmeter -- allows you to select Amps or Volts as you wish to read them.

MFJ-4230MV has an excellent 75% efficiency and extra low ripple and noise, <100 mV. A whisper-quiet fan cools by convection and *forced air* cooling.

Normal air-flow around the power supply is continuous and a heat sensor increases the fan speed when the temperature rises above 70 degrees celsius.

It features over-voltage and over-current protection systems and has a quiet internal cooling fan with *"fan on"* LED.

DC output is five way binding posts on the back of the MFJ-4230MV so you can power your dedicated HF, VHF or UHF transceiver with ease.

MFJ switching power supplies are protected by MFJ's famous *NOMatterWhat*™ 1 year limited warranty. We'll repair/replace (at our option) your supply for a full year.

Back of MFJ-4230MV

MFJ 30A *MightyLite™* adds pair of *PowerPoles(R)*

New!

MFJ-4230MVP super compact 30 Amp *MightyLite™* switching power supply has all of the popular features of the MFJ-4230MV . . .

MFJ-4230MVP
$99.95
with *PowerPoles(R)*
Ship Code B

. . . PLUS, it adds a pair of *Anderson PowerPoles(R)* for ARES and RACES, and others that enjoy the *Anderson PowerPole(R)* connections. See below for a large selection of *Anderson PowerPole(R)* cables and accessories.

The front panel still features 5-way binding posts that allow easy access connection for your rig and station accessories. MFJ-4230MVP is 25 Amps continuous and 30 Amps surge @13.8 VDC. Selectable 4-16 voltage.

Choose 120/240 @ 47-63 Hz to take it with you anywhere in the US and abroad.

MightyLite™ 28 Amp Switching Power Supply

MFJ-4128
$84.95
Ship Code B

MFJ-4128 can power your HF, VHF, or UHF mobile or base transceiver with an output of 28 Amps maximum and 25 Amps continuously at 13.8 VDC.

This basic power supply has all of the output connectors you will ever need!

MFJ-4128 has five way binding posts for high current rigs and quick connectors for low current accessories. It also has a low 7 amperage cigarette lighter plug, perfect for powering small accessories.

It is super lightweight (only 4 lbs.) and super-compact 7Wx2¼Hx7½D inches.

It features over-voltage and over-current protection systems and has a quiet internal cooling fan with *"fan on"* LED.

MFJ-4128 features a selectable AC input voltage from 85 to 135 VAC or from 170-260 VAC.

MFJ Portable Variable Power Supply

MFJ-4105
$99.95
Ship Code A

This MFJ power supply is portable enough to fit in any toolbox 3Wx4Hx1D". It's so light you can carry it anywhere. Provides fixed 5 VDC output along with a variable 1.5-12 VDC output. Total output is 500 mA. Output terminals and ground are convenient 5-way binding posts. Easy output voltage setting. Input 110 VAC.

HF Power Cords

A. MFJ-5535, $14.95. MFJ-5535 replaces your HF radio power cord at a fraction of the original cost. Two *super-flex,* 12 gauge, multi-strand, soft wires 8 feet in length. It has two in-line fuses/holders. Keyed plug prevents reverse polarity. For 8-pin type Yaesu, Icom, Kenwood, and other compatibles.

B. MFJ-5535M, $19.95. Same as MFJ-5535 but with *Anderson PowerPoles®*.

C. MFJ-5535C, $19.95. Same as MFJ-5535 HF power cord but has cigarette lighter plug. No fuse/holder.

D. MFJ-5538, $19.95. Heavy duty replacement power cable for IC-7000, Kenwood TS-480, and other compatibles. Keyed plug prevents reverse polarity. Has 4-pin connector with 9 foot, 12 gauge, red and black flexible cord, and inline fuses/holders are also included.

E. MFJ-5538M, $24.95. Same as MFJ-5538 but with *Anderson Powerpoles™*.

F. MFJ-5538C, $19.95. Same as MFJ-5538 but with Cigarette lighter plug.

VHF/UHF Power Cords

A. MFJ-5512, $12.95. Two *super-flex,* 14 ga., 15' multi-strand, soft wires. *In-line* fuse/holder. T-connector. Yaesu, Icom, Kenwood, Alinco.

B. MFJ-5512M, $17.95. Same as MFJ-5512 but with *Anderson Powerpoles™*.

C. MFJ-5515C, $14.95. VHF/UHF power cable. Cigarette lighter for car, T-connector for rig. Built-in 20A fuse, 3 feet. Fits most mobiles.

D. MFJ-5515M, $19.95. *Lighter plug & PowerPoles™*. Auto DC output. 20A fused, 2 flex 12 ga. multi-strand, soft wires, 3 ft.

DC Accessory Cables

1. MFJ-5510C, $9.95. Lighter plug w/2.1 mm coaxial. Power 12VDC acc.,3A fused, 5'.

2. MFJ-5510M, $14.95. Lighter plug to *Anderson Power Poles™*, 3A fused, 5 feet.

3. MFJ-5513M, $4.95. 2.1 mm, and *Anderson PowerPoles™*, DC ouput, 12VDC.

4. MFJ-5513, $1.95. 3 foot, 2.1 mm pigtail cable to power most popular MFJ keyers, tuners, analyzers, and accessories.

PowerPole (R) Adaptor Cables

MFJ *PowerPole(R)* cables are super-flex, 12 ga. multi-strand soft red/black zip cord.

A. MFJ-5514M, $12.95. #10 ring lugs to *PowerPoles(R)* connect to power supply binding posts. No shorting out. 35 A, 3 ft.

B. MFJ-5541M, $14.95. Red/black banana plugs to *PowerPoles(R)* adaptor, 15A, 3 feet.

C. MFJ-5542M, $15.95. Dual binding post plug to *PowerPole(R)* adaptor. Fits standard 11/16" binding post spacing. 30A, 3 feet.

D. MFJ-5544M, $14.95. *PowerPole to PowerPole(R)* extension cable, 35A, 3 feet.

E. MFJ-5543M, $8.95. *Powerpole(R)* patch cable with pre-tined wire ends. 35A, 3 feet.

Anderson PowerPoles® with 35A contacts

MFJ-11C06, $6.95, 6 pairs.
MFJ-11C12, $13.95, 12 pairs.
MFJ-11C25, $25.95, 25 pairs.
MFJ-11C100, $99.95, 100 prs.
MFJ-7602, $16.95. Tool for crimping *Power-Poles®*.

MFJ 75 Amp Switching Power Supply

Power your HF Mobile Amplifier or your HF and VHF/UHF transceivers from one power supply! Features MFJ's exclusive HashSQUELCH™ *RF Filtering System -- eliminates RF hash that plagues other manufacturer's switching power supplies . . . lightweight (just 10.5 lbs) . . .*

75 Amps Switching Power Supply
MFJ-4275MV

With *Anderson PowerPoles*™!

MFJ-4275MV
$^{\$}259^{95}$
Ship Code D

MFJ's heavy duty 75 Amp switching power supply is excellent for powering your HF mobile amplifier or your HF and VHF/UHF rigs and accessories.

It's great for Ameritron's ALS-500M Solid State Mobile HF Amplifier and others with a power requirement of up to 75 Amps.

MFJ-4275MV delivers 75 amps maximum and 70 amps continuously without even flexing its muscles. Input selectable voltage 110 VAC or 220 VAC.

It's highly regulated with load regulation better than 1%. Ripple voltage is less than 12 mV peak-to-peak at rated load.

No RF hash! MFJ's exclusive *HashFilters*™ Filtering System eliminates RF hash that plagues other manufacturer's switching power supplies.

Fully protected -- your MFJ-4275MV has Short-Circuit, Overload and Over-Temperature protection systems. Also has an auto restart after a fault. Has power on and Fault LED indicators.

Front panel adjustable voltage 4.0 to 16 VDC. Front-panel meters with backlight monitor voltage and current simultaneously.

MFJ's Exclusive *HashFilters*™
Filtering System eliminates RF hash that *plagues* other manufacturer's switching power supplies.

Attractive front panel features several options for connecting your gear: 1 pair of 5-way binding posts, 2 pairs of *Anderson PowerPoles*™, 1 pair of high-current 5-way binding posts, a cigarette socket for mobile accessories, and two pairs of quick connects.

Whisper quiet fan speed increases as load current increases -- keeps components cool and protected.

An automatic battery charging feature provides charging current of 20 Amps maximum, 5A continuous, 30 mA trickle charge.

Measures $9^3/_4$Wx$5^1/_2$Hx$9^1/_2$D inches. Weighs just 10.5 lbs. -- light enough to carry on DXpeditions, camping and vacations.

No more hauling around big, bulky conventional power supplies that can give you a hernia! Pack this 75A supply on your next trip and no worries you will hurt your gut!

MightyLite™ 35 Amp Switching Power Supply

MFJ-4235MV can power your HF or VHF/UHF mobile or base transceiver with an output of 30 Amps continuous and 35A surge. You can vary the voltage from 4.0 to 16 Volts with 1% voltage regulation. MFJ-4235MV features less than 9 mV peak-to-peak ripple at the rated load.

MFJ's Exclusive *Hash-SQUASH*™ Filtering system eliminates RF hash that *plagues* other manufacturer's switching power supplies. MFJ-4235MV has no RF hash in the ham bands!

It features switchable AC input from 90 to 125 or 200 to 240 Volts. It has an easy-to-replace external replaceable fuse.

MFJ-4235MV is fully protected with short circuit, overload and over-temperature protection systems.

Your power supply will be safe from any overheating or other problems with your equipment -- it will shut down before any harm comes to it. It also has an auto-restart after a fault.

Attractive front panel features multi-color current and voltage meters with backlight -- makes it easy to monitor simultaneously. It has a *power on* and *Fault* LED indicator for a quick warning sign of any trouble that might come your way.

MFJ-4235MV
$^{\$}134^{95}$
Ship Code C

Output connectors feature one pair of 5-way binding posts for your rig, a low amperage cigarette lighter socket and quick connect terminals for any accessories. Also has one pair of 5-way binding posts for automobile battery charging.

Whisper-quiet cooling fan keeps your components cool and safe for operating.

MFJ-4235MV weighs just 4 lbs., so you won't break your back carrying it to field day, DXpeditions, to a buddie's house for testing or camping or business trips.

Measures 7Wx$4^1/_4$x$8^3/_4$D inches.

MFJ 30/35 Amp Regulated DC Power Supply

Massive 19.2 pound transformer, Adjustable 1-14 VDC, Quick connects, cigarette lighter socket . . .

MFJ's heavy duty power supply is excellent for powering your rig/accessories.

A massive 19.2 pound transformer makes this power supply super heavy duty! It delivers 35 amps maximum and 30 amps continuous without even flexing its muscles. Plugs into any 110 VAC wall outlet.

It's highly regulated with load regulation better than 1%. Ripple voltage is less than 1 MV. *No RF hash*! Fully protected -- has over voltage, fold back short circuit and over-temperature protection systems.

You get front panel adjustable voltage from 1 to 14 VDC with a convenient detent set at 13.8 VDC. Front-panel meters monitor voltage and current.

Three sets output terminals include pair of heavy duty 5-way binding posts for HF/VHF rigs.

Two pairs of quick-connects are for your accessories and a covered cigarette lighter socket is used for your mobile accessories.

A front-panel fuse holder makes fuse replacement easy. Quiet fan speed increases as load current does -- keeps cool.

Measures $9^1/_2$Wx6Hx$9^3/_4$D inches.

MFJ-4035MV
$^{\$}149^{95}$
Ship Code F

MFJ Adjustable Regulated DC Power Supply
METER

AC and DC Adaptors for MFJ Accessories

All MFJ adaptors have an output cord with a 2.1 mm center positive coaxial DC power plug, except as noted.

"X" models have an open-end 2-conductor wire for connecting an AC input plug.

Figure	Item No.	Price	Input Voltage	Output Voltage	Current
A	MFJ-1312D	$15.95	100-240 VAC	13.8 VDC	500 mA*
B	MFJ-1312DX	$15.95	230 VAC	12 VDC	500 mA
C	MFJ-1316	$21.95	120 VAC	12 VDC	1.5 Amp
D	MFJ-1318	$29.95	120 VAC	16 VDC	500 mA
E	MFJ-1317	$34.95	100-240 VAC	13.8 VDC	2.9 Amp*
F	407-1072	$15.95	120 VAC	12 VAC	1 Amp
B	407-1072X	$15.95	230 VAC	12 VAC	1 Amp
G	407-1075	$21.95	120 VAC	16 VAC	1 Amp
H	407-1109	$29.95	120 VAC	14 VAC	2.9 Amp**

*Denotes Switching Type Adaptors. **This model has 3.5 mm, 3-conductor output plug.

MFJ *Switching* Power Supplies

Power your HF transceiver, 2-Meter/440 MHz mobile/base and accessories with these 25 or 45 Amp MFJ MightyLite™ Switching Power Supplies! No RF hash, Super lightweight, Volt/Amp Meters . . .

NO RF HASH!

MFJ Switching Power Supply
A
V
MFJ-4225MV

Now with LED lights!

MFJ-4225MV
25 Amp, *LED lighted*
$99.95
Ship Code B

MFJ-4245MV
45 Amp, *LED lighted*
$149.95
Ship Code C

NO RF HASH!

MFJ Switching Power Supply
A
V

Now with LED lights!

MFJ's Exclusive *HashFILTER*™ Filtering System eliminates RF hash that *plagues* other manufacturer's switching power supplies.

MFJ's new adjustable voltage switching power supplies do it all! Power HF/2M/440 MHz rigs and accessories. No more hauling around bulky supplies that cause a hernia.

MFJ's 25 Amp *MightyLite*™ weighs just 3.7 lbs. -- *5 times lighter* than an equivalent conventional power supply. Measures a super compact 5¼Wx4½Hx6D". MFJ's 45 Amp is even more dramatic -- *8 times lighter,* weighs just 5.5 lbs! Just 7½Wx4¾Hx9D".

No RF hash!

These babies are clean . . . Your buddies won't hear *any* RF hash on your signal! *None* in your receiver either!

Some competing switching power supplies generate objectionable RF hash in your transmitted and received signal.

These super clean MFJ *MightyLites*™ meet all FCC Class B regulations.

Low Ripple . . . Highly Regulated

Less than 35 mV peak-to-peak ripple under 25 or 45 amp full load. Load regulation is better than 1.5% under full load.

Fully Protected

You won't burn up our power supplies! They are fully protected with Over Voltage and Over Current protection circuits.

Worldwide Versatility

MFJ *MightyLites*™ can be used anywhere in the world! They have switchable AC input voltage and work from 85 to 135 VAC or 170 to 260 VAC. Replaceable fuse.

MightyLites™ . . . Mighty Features

MFJ *MightyLites*™ feature a front-panel voltage control. It lets you vary the output voltage from 9 to 15 Volts DC and gives you a highly regulated voltage output.

Easy access front-panel with 5-way binding posts for heavy duty use and cigarette lighter socket for accessories. MFJ-4245MV has 2 sets quick-connects on rear for accessories.

Large 3 inch dual meters are illuminated to make it easy to monitor load voltage and current. Whisper quiet internal fan cools your power supply for long life.

About the MFJ-4225MV, *QST* (January 2000) said, "its external control for varying the output voltage is very handy for test bench applications," and noted, "overall, noise generated by this supply is very low".

Super Compact MightyLite™ 25 Amp Switching Power Supply

The smallest and lightest power supply in ham radio! Tiny 5¾Wx3Hx5¾D" fits anywhere . . .

MFJ-4125, similar to the popular MFJ-4225MV but is smaller and doesn't have meters or cigarette lighter socket.

Has 5-way binding posts for high current radio connects and a pair of speaker type terminals for low current accessories.

Super protection modes include Over Voltage and Over Current. Whisper quiet internal cooling fan generates tremendous air flow to help keep components cool.

MFJ-4125
$84.95
Ship Code B

NO RF HASH!

MFJ-4125P
with 2-pair *Anderson PowerPole®* connectors
$94.95
Ship Code B

MFJ-4125 has switchable AC input voltage. 110 VAC at 47-62 Hz and 220 VAC at 47-63 Hz.

Super regulation. AC input versatility allows 85-135 VAC or 170-260 VAC.

Weighs 3.5 lbs. Measures an unbelievable 5½Wx2½Hx5¾D"-- it's the *smallest and lightest* power supply in ham radio!

MFJ-4125P is similar to MFJ-4125. Adds 2-pair of *Anderson PowerPole*™ connections.

Ultra-Compact 0-24 VDC Switching Power Supply

MFJ-4218MV
$99.95
0-24 VDC
Ship Code A

MFJ-4218MV has adjustable output from 0 to 24 VDC. You can power more than your HF or VHF radio.

Adjustable low output allows you to run low power accessories -- 1.5V, 3V, 5V, 9V or any voltage in between, 0-24 VDC.

24 VDC output setting lets you power your marine radio and accessories. Voltage adjustment control has a detent to set voltage at 13.8 VDC.

Large backlighted dual meters continue monitoring output voltage and current.

MFJ's Exclusive *HashSQUASH*™ Filtering System makes MFJ switching power supplies the quietest in the industry.

Has a pair of 5-Way binding posts for output connection. Output protection includes short, overload and over-temperature. Has load fault indicator with auto reset after each fault detected.

Rated output current is 18A at 13.8 VDC or 9A at 24 VDC. Easy for traveling, just 6Wx2¼Hx6¾D inches. Weighs just 2.2 lbs. 110 VAC.

Ultra-Compact 15 Amp Switching Power Supply

MFJ-4115
$59.95
Ship Code A

MFJ
MFJ-4115
15A

MFJ-4115 is super-compact, perfect for traveling on vacations, camping or business trips -- weighs just 1½ lbs and is a tiny 3¾Wx2¼Hx7¾D inches.

This tiny supply will easily fit in your briefcase or suitcase and power most VHF/UHF or QRP radios. This supply and your rig will add fun to your boring hotel room!

MFJ's Exclusive *HashSQUASH*™ Filtering System eliminates RF hash that *plagues* other manufacturer's switching power supplies.

MFJ-4115 has over-voltage and over-current protection systems and works with AC input from 90 to 130 Volts.

Output is 13.8 VDC, 17 Amps surge and 15 Amps continuous.

It features one set of 5-way binding post connections and transmit and power LEDs.

MFJ-4115 is super clean, has a quiet fan and super regulation. Has load fault indicator and automatic shut-down.

MightyLite™ 15 Amp Switching Power Supply

MFJ-4215MV
$69.95
Ship Code A

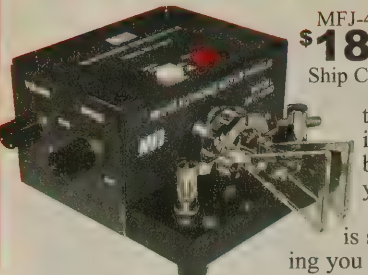
MFJ-4215MV can power your VHF/UHF mobile radio with 13 Amps continuous and 15 Amps surge. Has variable voltage control from 4.0 to 16 Volts with 1% voltage regulation. It has less than 9 mV peak-to-peak ripple at the rated load.

MFJ's Exclusive *HashSQUASH*™ Filtering System eliminates RF hash that *plagues* other manufacturer's supplies.

Easy-access front panel connectors: 5-way binding posts, cigarette lighter socket and Voltage Adjustment control. Backlighted Voltage and Ampere meters. Power on and "fault" LED indicators.

Switchable AC input: 90-125 or 200-240 selectable. Has external replaceable fuse. MFJ-4215MV is fully protected with Short-circuit, overload and over-temperature protection systems. It also has an auto-restart feature after a fault. Whisper quiet cooling fan. Weighs just 2.9 pounds, measures 5Wx3¼Hx7D inches.

MFJ/Curtis/Bencher is a winning CW combo!



MFJ-422D
$189⁹⁵
Ship Code B

The Best of all CW worlds -- a *MFJ/Curtis* keyer™ in a compact package that fits on the Bencher iambic paddle! Buy the combination or just the keyer for your Bencher or MFJ paddle.

MFJ's most popular keyer is small but big in features giving you adjustable weight and tone and has front panel volume and speed controls (5-65 wpm). Has built-in dot-dash memories, speaker, sidetone and auto or semi-auto/tune modes.

Keys solid state or tube transmitters. Fully shielded. 9 volt battery or 110 VAC with **MFJ-1312D, $15.95.**

MFJ-422DX
$99⁹⁵
Ship Code A

Keyer mounts on the paddle base to form a small 4x2$^{1}/_{4}$x4$^{1}/_{4}$". *Buy the combo or just the MFJ keyer* (**MFJ-422DX**) to fit on your Bencher or MFJ-564 or MFJ-564B iambic paddle (see below).

Paddles to use with MFJ-422DX

MFJ-564 Black or Chrome, $69.95 (see below).
BY-1, $129.95. Black Bencher.
BY-2, $159.95. Beautiful chrome Bencher paddle.

MFJ Curtis Iambic Keyer has Dot, Dash Memory

MFJ-407D
$79⁹⁵
Ship Code A

Everything you need to send great CW from this *MFJ Cutris* Keyer™ -- easy access front panel controls, *all* keyer modes, dot-dash memories, jam-proof spacing, weight control, sidetone, built-in speaker and more. Speed, weight, tone and volume controls, and tune, semi-auto and on/off switches are on the front panel.

A dual paddle key such as the MFJ-564, lets you use the *iambic mode*. In this mode, you can insert a dot before a dash finishes or insert a dash before a dot finishes. Also, squeezing both paddles generates alternating dots and dashes. This lets you send characters such as C, K, and R with a single squeeze. It turns an inexperienced fist into a professional.

You can use the *automatic* mode with a single or dual paddle. You automatically generate dots and dashes by pressing the paddle.

You can switch into a *semi-automatic "bug"* mode to generate dots automatically and dashes manually. Or you can use a *"straight key"* and manually generate your own dots and dashes.

You get dot-dash memory, self-completing dots and dashes, jam-proof spacing and instant start keying.

Select Type A or Type B keying to match your sending style.

Weight control lets you adjust your dot-dash space ratio to make your signal sound distinctive to bust through pile-ups. It also lets you compensate for the turn-on delay of your transmitter.

Has tune switch for tuning your transmitter or antenna tuner. RF proof. Built-in speaker for sidetone.

Keys solid state and tube transmitters. Use 9 volt battery or 110 VAC with MFJ-1312D, $15.95. Attractive black cabinet measures 5$^{3}/_{4}$x1$^{3}/_{4}$x4$^{3}/_{4}$ inches.

MFJ/Curtis ECONO Keyer™

MFJ-401D
$69⁹⁵
Ship Code A

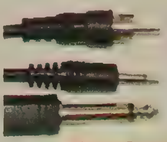
MFJ-401D is the same as MFJ-407D except weight and tone controls are adjusted internally and doesn't have a tune switch. Use 9 volt battery or 110 VAC with MFJ-1312D, $15.95. 4x1$^{3}/_{4}$x3$^{1}/_{4}$ inches.

Build Your Own Keyer with this Curtis Chip

CURTIS KEYER
8045ABM

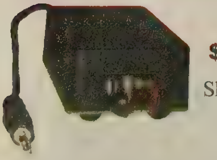
Revolutionary new Curtis Chip. Choose . . . 28 pin skinny DIP or SMT SOIC package. **MFJ-8045ABM, $29.95.**

Pre-Wired Keyer to Rig Cables



MFJ-5164, $11.95. Keyer to radio keying cable. Has phono plug on keyer end to fit MFJ keyers and a 3.5 mm plug with 1/4" phone plug adaptor to fit most transceivers.

MFJ *Nano-size* Keyer/Paddle Combination



MFJ-402
$69⁹⁵
Ship Code A

Ham radio's tiniest electronic keyer has a built-in iambic paddle! It's just 2x3x1 inches and weighs 3½ ounces!

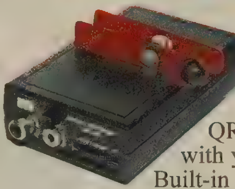
Fully-enclosed paddle has a "bug" feel for smooth CW. It's precision formed from resilient phosphorous bronze.

It's easy-to-use. Just set one button and send one letter to change your keyer settings -- speed 5-65 WPM, weight 25%-75%, iambic mode A/B, normal or "bug" mode and reverse paddle.

Screwdriver adjustment for easy speed change. Tune mode for tuning antenna tuner or transmitter. RF proof. 4 foot cord with 3.5 mm plug. Direct output keys solid state rigs.

No on/off switch -- keyer turns off between dits! Battery lasts nearly shelf life.

Pocket Travel Keyer has Built-in Paddle



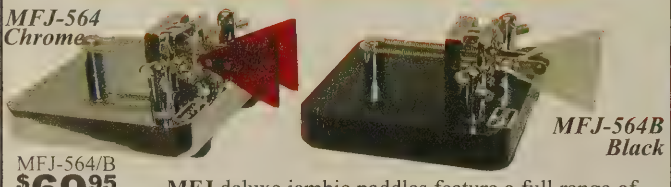
MFJ-403P
$79⁹⁵
Ship Code A

MFJ's Travel Keyer is a full-featured CW keyer with a built-in Iambic paddle. Ultra-compact 3$^{3}/_{4}$Wx1Hx2$^{1}/_{4}$D" is perfect for traveling or for home use with QRP or "big" rigs. Put it in your briefcase along with your MFJ *Cub*™ or other rig on your next trip.

Built-in sidetone with LM386 audio amplifier, speaker and volume control makes monitoring sending easy. Adjustable speed 3 to 60 WPM. Sidetone pitch is adjustable 300 to 1000 Hz. Weight adjustable from 25% to 75%. Tune mode, RF proof, Battery Saver feature. Select a keyer mode to suit you - - iambic mode A or B, fully automatic or semi-auto "bug" mode. Use 9 Volt battery, not included. Direct output keys solid state rigs.

MFJ-403, $59.95. MFJ ultra compact CW Travel Keyer only.

MFJ Deluxe Iambic Paddles



MFJ-564/B
$69⁹⁵
Ship Code B

MFJ deluxe iambic paddles feature a full range of adjustments in tension and contact spacing, self-adjusting nylon and steel bearings, contact points that almost never need cleaning, precision machined frame and non-skid feet on heavy base. Use with MFJ-422DX/MFJ-490X keyers. **MFJ-5166, $11.95,** ***(left)***. Paddle to Keyer cable. Has pre-wired solder lugs on paddle end and 3.5 mm plug with 1/4" phone plug adaptor to fit MFJ keyer.

MFJ *Miniature* Iambic Paddle

MFJ-561
$24⁹⁵
Ship Code A

This *miniature*, lightweight iambic paddle is just 1$^{3}/_{4}$Wx1$^{3}/_{4}$Dx$^{3}/_{4}$H inches and weighs just 2$^{1}/_{2}$ ounces. Tiny enough to fit in an *Altoids*$^{(R)}$ tin (cord and all!) for protection. It's perfect for traveling or for home use with QRP or "big" rigs. Perfect companion for MFJ or other keyers. Great for any QRP or QRO rig! The paddle is precision formed from special phosphorous bronze spring material with an A150 temper. This gives you an excellent feel so you can send smooth CW. Mounted on rugged metal base with non-skid rubber feet. Has 4 foot cord and 3.5 mm plug -- ready to plug into keyer or rig! **MFJ-561K, $19.95.** ***Build your own!*** MFJ iambic paddle kit with instructions, cord, hardware needed to build your paddle.

MFJ *Millenium*™ CW Memory Keyer

Is CW dead?

Not at MFJ! MFJ's menu driven LCD display makes it so easy to use, you don't need an instruction manual.

The MFJ-495 combines the latest millenium microprocessor technology with non-volatile EEPROM memory for a full-featured, low cost, high reliability design.

Send CW or load messages using a paddle, keyboard or computer serial port.

Easy-to-use menus and LCD display let you set all keyer functions merely by pushing buttons. Keyer functions can also be changed from your paddle, keyboard or computer.

The LCD also shows the message as it's being sent from memory or live from your paddle, keyboard or computer.

The MFJ-495 has 32 message memories of 256 characters each. You can repeat messages continuously, insert timed pauses within messages, insert an auto-incrementing serial number, have messages call other messages or insert embedded commands to change speed, weight, etc. automatically.

MFJ-495 supports both direct and grid-block outputs and has a port for an optional remote control. PTT output, built-in speaker, sinewave sidetone, more!

MFJ MEMORY KEYER
MFJ-495
VOLUME
SPEED

MFJ-495
$179.95
Ship Code B

Features include:

Iambic keyer with dot and dash memories; automatic, semi or hand-key mode.

Keyboard Input lets you plug in any AT keyboard for type ahead buffer. All commands, functions, and memories can be done through the keyboard!

Message editing capability.

Input queue to store multiple messages.

Auto-incrementing contest serial numbering from 001 to 9999.

Digital and linear analog speed control from 5 to 99 wpm (3:1 to 20:1 speed range)

Farnsworth, speed from 10 to 99 wpm

Ultra speed sets messages up to 990 wpm

Adjustable weight 25% to 75%

Adjustable sidetone from 300 to 1000 Hz

Keying output delay up to 20 ms

Push-to-talk (PTT) hang time up to 5 sec.

Direct (pos.) or grid-block (neg.) keying

Timed tune for XMTR adjustment

Timed pauses in messages/message loop

Internal speaker with adjustable volume

Supports Qwerty and Dvorak keyboards

190 characters type-ahead keyboard buffer with low buffer warning

Dual user mode supports operators with different configuration settings

Compact and handsome all-black metal cabinet measures just 61/4Wx21/2Hx61/4D in. Use 12 VDC or 110 VAC with **MFJ-1312D, $15.95** AC adapter.

RFI-Suppressed Keyboard

MFJ-551, $39.95. RFI suppressed keyboard.

Remote Control Unit

MFJ-70, $34.95. Full function wired remote control for MFJ-495.

Menu Memory Keyer/Bencher Paddle

MFJ-490
$229.95
Ship Code B

The MFJ Menu Driven Memory Keyers™ are the easiest memory keyers to operate. You can even operate them without an instruction manual! There's no keypad, no complex sequence, nothing to remember. Just select a menu by pressing a button. An LED lights to indicate which menu is active. Then select a feature by pressing a Feature button. It's as easy as using a computer touch screen.

Each menu is clearly printed on the front (or top) panel -- no confusion. From the menu you can save and play messages, decrement serial numbers, set Speed, Weight, Sidetone, enter Iambic, Semi-auto, Handkey, Message Queue, Paddle command modes, turn Sidetone on and off, transmitter Tune, and set keying output on or off.

You can select iambic A or B, reverse paddle, Morse trainer, and store starting serial number for contests. Bypass the menu by keying in simple two-letter commands. The keyer tells you its status in CW.

You can adjust CW speed, 5 to 100 wpm, by pressing the dot or dash paddle smoothly or by knob control. The powerful Morse trainer lets you practice or teach in Farnsworth or normal mode. Select letters, numbers, prosigns, or any combination for practice using five character groups, or more realistic 1-8 character groups.

And more! You get contest serial numbering (0-9999) with auto-increment, built-in sidetone, speaker, front panel volume control and adjustable 300-3000 Hz tone. You can use automatic, semi-automatic or bug or handkey modes, reverse dot/dash paddles, adjust weight from 5 to 95%, and compensate for transmitter distortion, You can key direct or grid-block keying transmitters, solid state or tube rigs. Special MARS characters recognized.

Super Menu Driven Memory Keyer

MFJ-492
$119.95
Ship Code B

The MFJ Menu Driven Memory Keyer™ has 192 character (8K) memories. The memories are divided into four soft sectors. Uses 9V battery (not included) or 110 VAC with **MFJ-1312D, $15.95.** Memories are backed up by a lithium battery.

Order **MFJ-490, $229.95,** Memory Keyer/Bencher paddle combination, 5X3X5½ in. **MFJ-490X, $129.95,** is the keyer only.

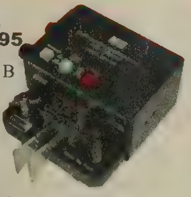
MFJ-492, $119.95, stand alone keyer, 6½X2½X6¾ inches.

MFJ-492X,$134.95 (MFJ-492 with 8K additional memory installed), **MFJ-80, $21.95,** (8K memory for MFJ-492 only).

MFJ-78, $34.95, full function wired remote control.

MFJ Slimline™ Electronic Keyers with Memory

MFJ-442
$199.95
Ship Code B



Tired of sending the same phrase on CW over and over? "QTH, name..."

But you don't want to pay the price of a memory keyer, or they're too confusing to use. The MFJ *Slimline* keyers have the answer -- a *Slimline*™ keyer and an iambic paddle are your entry into real CW, at a price not much higher than a plain keyer, with enough memory to store the essential day-to-day messages.

Weight control lets you lengthen or shorten dots and dashes. It compensates your transmitter for a proper 1:3 ratio. Dot/dash lengths are adjustable for a distinctive "touch." Has Type A and B keying, too.

MFJ-447
$99.95
Ship Code A

The Slimlines have MFJ's 500 character non-volatile *MessageMemory*™.

You can embed Message Loop, Extra Word Space, pause and serial number increments after each sending.

LED blinks during programming and blinks faster for low memory.

SlimLine™ keyers have sidetone volume and tone control, and CW speed (5 to 65 wpm) and weight controls.

Semi-auto lets you make dashes manually for "bug" operation. Use dual or single lever paddle. Positive and negative keying. 9V battery or 110 VAC with **MFJ-1312D, $15.95.**

MFJ-441
$79.95
Ship Code A

MFJ-442, *SlimLine*™ Keyer and MFJ paddle combo. Front panel speed, volume controls.

MFJ-442X, $109.95. Keyer only. 4x1¾x2¾ inches. Fits on your Bencher or MFJ-564/B iambic paddle.

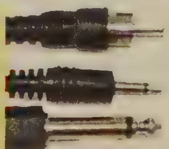
MFJ-447 *SlimLine*™ Deluxe keyer; front panel speed, weight, tone, volume controls and message, semi-auto, tune, power buttons. Jack for speaker/headphones. 6¼x1¾x5 in.

MFJ-441. *SlimLine*™ Econo Keyer. Just 1¼ inches tall. Has volatile 89 character *MessageMemory*™. Front panel speed/volume controls. 4x1¾x3¼ inches.

MFJ Pre-Wired Keyer-to-rig and Paddle-to-Keyer Cables

MFJ-5166, $11.95. Paddle to Keyer cable. Has pre-wired solder lugs for MFJ, Bencher and other Iambic paddles and 3.5 mm plug with a 1/4" phone plug adaptor to fit most MFJ and other keyers.

MFJ-5164, $11.95. Keyer to radio keying cable. Has phono plug on keyer end to fit MFJ keyers and a 3.5 mm plug with 1/4" phone plug adaptor to fit most transceivers.

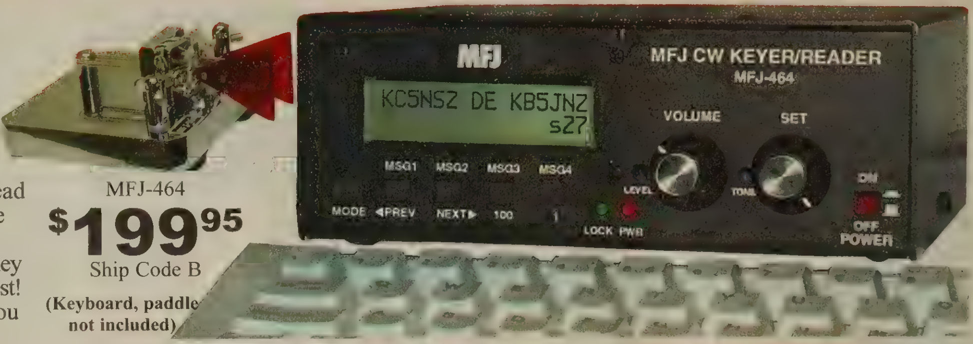


Morse Code Reader has Built-in Memory Keyer

Is your CW rusty? ***Relax*** and plug-in this MFJ Morse Code Reader with built-in keyer at your operating position. Then watch CW turn into solid text messages as they scroll across an *easy-to-read* LCD display.

It makes working high speed CW a breeze - - even if you're rusty. Type-ahead buffer, message memories and adjustable speed get you ready to compete with the world's best hi-speed CW operators -- and they won't even know you just passed the code test!

The MFJ-464 gives you everything you need to have the ultimate CW Station: sends and Reads 5-99 WPM . . . Automatic speed tracking . . . Large 2-line LCD shows send/receive messages . . . single or iambic paddle or computer keyboard operation . . . Front panel speed, volume controls . . . 4 message memories . . . type ahead buffer . . . read again buffer . . . adjustable weight & sidetone . . . RFI proof . . . much more!



MFJ-464
$199.95
Ship Code B
(Keyboard, paddle not included)

Reader has Auto Speed Track

MFJ *AutoTrak*™ automatically locks on, tracks and displays CW to 99 wpm.

Simply plug-in your MFJ-464 to your receiver speaker until the lock LED flashes in time with the CW.

High performance modem

Consistently get solid copy from MFJ's high performance *PLL* (*phaselock loop*) modem. Digs out weak signals. Even tracks slightly drifting signals. Of course, nothing can clean and copy a sloppy fist, especially weak signals with lots of QRM/QRN.

Built-in keyer features

The MFJ-464 combines the latest millenium microprocessor technology with non-volatile EEPROM memory for a full featured, low cost, high reliability design.

You can send CW or load messages using a paddle, keyboard or through yourcomputer serial port.

Easy-to-use menus and LCD display let you set all keyer functions merely by pushing buttons. Keyer functions can also be changed from your keyboard or computer.

The LCD also shows the message as it's being sent from memory or live from your paddle, keyboard or computer.

The MFJ-464 has 4 message memories of 256 characters each. You can repeat messages continuously, insert timed pauses within messages, insert an auto-incrementing serial number, have messages call other messages or insert embedded commands to change speed, weight, etc. automatically.

Sinewave Sidetone . . . More!

MFJ-464 supports Direct keying output. Has PTT output, built-in speaker, sinewave sidetone and more! Iambic keyer with dot and dash memories; automatic, semi or hand-key mode. Input queue lets you store multiple messages. Auto-incrementing contest serial numbering from 001 to 9999.

Adjustable Speed 5-99 WPM

Digital linear speed control, 5-99 wpm
Farnsworth Mode with speed adjustable from 10-99 wpm.
Ultra speed sets messages up to 990 wpm.
Adjustable weight 25% to 75%.
Adjustable sidetone from 300-1000 Hz.
Keying output delay to 20 milliseconds.
Push-to-talk hang time to 5 seconds.
Timed tune function for XMTR adjusting.
Timed pauses in messages/message loop.
Internal speaker with adjustable volume.
Qwerty & Dvorak keyboards.

Type-Ahead Buffer

190 character type-ahead keyboard buffer with low buffer warning.
Keyboard Input Use any AT keyboard to program functions & memories.
Compact *black* metal, 6¼Wx2½Hx6¼D". 12VDC or 110VAC w/ MFJ-1312D, $15.95.

MFJ-464 Accessories

MFJ-5161, $16.95. MFJ-464 to computer serial port cable (DB-9).

MFJ-5162, $7.95. Connects **MFJ-464** to radio's external speaker 3.5 mm jack.

MFJ-5163, $10.95. Connects MFJ-464 and another accessory to your radio speaker.

MFJ-5164, $11.95. Keyer to radio keying cable. Has phono plug on keyer end to fit MFJ keyers and 3.5 mm plug with 1/4" phono plug adapter to fit most transceivers.

MFJ-551, $24.95. RFI suppressed keyboard, a must to avoid RFI problems when operating CW keyboard mode.

MFJ Deluxe Iambic Paddles

MFJ-564 Chrome

MFJ-564/B
$69.95
Ship Code B

MFJ-564B Black

MFJ deluxe iambic paddles feature a full range of adjustments in tension and contact spacing, self-adjusting nylon and steel bearings, contact points that almost never need cleaning, precision machined frame and non-skid feet on heavy base. MFJ-422D and MFJ422DX/MFJ-490X keyers can be used with these paddles. **MFJ-5166, $11.95.** Iambic Paddle to keyer cable. Has pre-wired solder lugs on paddle end and 3.5 mm plug with 1/4" phone adapter to fit MFJ keyer.

Super CW Keyboard -- No Computer Required!

MORSE KEYBOARD KEYER
MFJ
MODEL MFJ-452

MFJ-452
$159.95
Ship Code B

MFJ-452X
$129.95
Ship Code A
No Keyboard

MFJ *Super CW Keyboard* lets you send effortless CW as soon as you turn it on -- no computer to boot, no program to load -- just start typing.

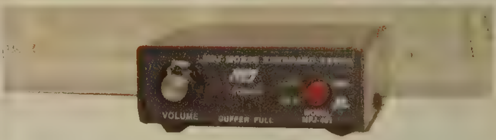
You get a standalone MFJ CW Keyboard that includes an RFI suppressed keyboard, a two line 16 character LCD display, eight 250 character nonvolatile message memories, a 150 character type-ahead buffer, iambic keyer, plus a powerful Morse Code trainer, more!

Variable speed from 5 to 100 WPM, adjustable weight from 5 to 95%, sidetone from 300 to 3000 Hz and serial number from 0 to 9999. Has buffer and memory full audible indicators. Keys solid state and tube rigs. AT101 compatible keyboard plugs into compact 3½x2½x3½ inch interface. Use 12 VDC or 110 VAC with MFJ-1312D, $15.95. **MFJ-452X, No keyboard.**

Use MFJ-5164, $11.95, keyer to rig keying cable.

MFJ Dedicated CW Keyboard

MFJ-451, like MFJ-452 but without LCD display and has two 100 character memories. **MFJ-451X,** no keyboard.



MFJ-451
$129.95
Ship Code B

MFJ-451X
$109.95
Ship Code A
No Keyboard

MFJ *Pocket Size* Morse Code Tutor

Beginner's Course

MFJ-418
$89.95
Ship Code A

ARRL/VEC format. Learn small fixed sets of characters. Previously learned sets are combined with new sets to reinforce all you have learned.

Practice copying, then instantly replay to check your copy on the LCD display.

Custom Character Sets

Having trouble with certain characters? Build and save 3 custom sets of 16 characters for extra practice -- *an MFJ exclusive.*

Practice copying *realistic* on-the-air style plain English QSOs. Gets you ready to pass your FCC test and upgrade. Also builds confidence for your first *real* contact.

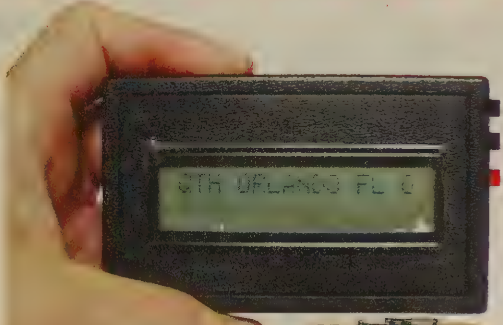
MFJ Word Recognition Mode™

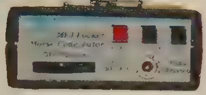
MFJ's *Word Recognition Mode™* gives you hundreds of commonly used words in ham radio. Practice recognizing *entire words* instead of individual letters.

Select letter, number, punctuation, prosign or FCC character sets (has *only* letters, numbers and prosigns required on FCC tests), random call signs, random words, QSOs or combo sets for practice -- *you'll never run out of study material!*

MFJ InteractiveMode™

InteractiveMode™ lets *you* decide when to copy the next or previous group and how many -- great for beginners!




MFJ-418 top view

Select normal or Farnsworth spacing.

Farnsworth makes it easier to learn *entire* characters. Stop counting individual dots and dashes that slows learning! Adjusts 10 to 60 WPM.

Use fixed length or more realistic random length groups (up to 8 characters).

You can change speed *on-the-fly* while playing a session 3 to 60 words-per-minute.

SettingSaver™

Settings are automatically saved, ready to use next time--just turn on and replay.

Check your copy, select from menus and program custom characters and words on 2 line LCD display with 32 *huge* 1/4 inch high-contrast characters -- *powerful sound and sight learning!*

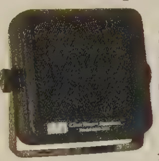
Only MFJ gives you *SilkySmooth Sidetone™* with *TruTone™* sinewave and *SoftStart™* dots/dashes -- lets you concentrate on learning without distracting, harsh keyclicks. Use earphones for private practice or built-in speaker for groups. Volume control. Variable pitch 300-1000 Hz.

Fits in your shirt pocket with room to spare -- smaller than a pack of cigarettes. Tiny 2 1/4x3 3/4x1 in., weighs less than 5 1/2 ounces. Uses 9 volt battery (not included).

Tapes play the same old boring stuff over and over. Unlike tapes, you'll *never* memorize MFJ-418's random sessions.

Pocket Tutor Accessories

MFJ-26B, $9.95. Soft leather protection for MFJ-418 with pocket/belt clip.



MFJ-281, $12.95. Speaker for group practice. Loud, powerful audio! 3 3/4x3x2 1/4"

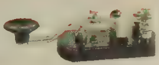
More MFJ Morse Tutors

MFJ-417, $69.95. Similar to MFJ-418, but no LCD. Most software features.

MFJ-413, $49.95. Similar to MFJ-417, less random words, QSOs, SettingSaver™.

MFJ Deluxe Code Practice Oscillator & key

MFJ-557
$39.95
Ship Code B



MFJ-550
Telegraph key only
$14.95
Ship Code A

MFJ-557 *Deluxe Code Practice Oscillator* features a Morse straight key on a non-skid heavy steel base -- stays put and doesn't move around while you're sending.

MFJ-557 lets you practice sending code at home, work, riding in your car -- practically anywhere -- because you can take it wherever you go. Volume control adjusts from barely audible to blaring full sound.

Practice without bothering anyone.

Tone control for wide adjustment, from high "squeaky" to low "booming" tones. Earphone jack for private listening.

Plug in an external speaker (**MFJ-281, $12.95**) for high volume in the classroom.

MFJ-557 runs on a 9 volt battery (not included) or 110 VAC with MFJ-1312D, $15.95. Plugs into jack on the side.

When you're finished cleaning up your sloppy fist, hook up the MFJ-550 straight key to your transmitter and go *on-the-air.*

Don't pass up a super buy! Built-in speaker, adjustable contacts. Compact 8 1/2x2 1/4x3 3/4 inches. Black.

Deluxe Wood Telegraph

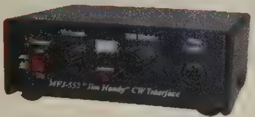
MFJ-553
$29.95
Ship Code A

MFJ-553 Deluxe Wood Base Telegraph features a Morse Code straight key on a non-skid, beautifully stained wood base. A steel under-plated bottom makes it stay put on your table and it doesn't move around while you are sending! Designed by KA5MAN, this key lets you send code at home, work, riding in your car -- practically anywhere -- because it's easy to take wherever you go.

Prewired 3 foot cable with 3.5 mm plug.

Hook-up the straight key to your rig and go on-the-air sounding like you were born working QSOs and look good doing it. Makes a handsome addition to any shack.

Use HT for on-the-air CW Fun



MFJ-552
$99.95
Ship Code A

MFJ's *JimHandy™* CW interface plugs into your 144/440 MHz handheld and converts it into a modulated CW transceiver -- just plug in your key.

Get your ham buddies together *on-the-air* and enjoy some fantastic CW fun. Run a little code practice on your repeater. Start your own FM CW Net. Have fun and upgrade! A transmit/receive switch automatically switches your HT to transmit when you send CW and returns you to receive when you stop keying.

Built-in speaker, volume control and great sounding *true* sinewave sidetone -- no harsh keyclicks. 4Wx1 1/4Hx3 3/4D inches. Use 9V battery (not included). Pre-wired patch cables, $17.95 for your HT on page 38. **MFJ-550** key only, **$14.95.**

Classroom Code Oscillator

MFJ-554
$99.95
Ship Code A

The world's finest code practice oscillator is designed for demanding classroom use and abuse.

It produces a true pure *sinewave* sidetone with no trace of harsh keyclicks. You'll hear the clearest, sweetest sounding CW you have ever heard. Delivers full 1 watt into built-in 3" speaker -- fills an entire room. Low distortion -- less than .2% total harmonic distortion from its BTL (Bridge-Tied-Load) amplifier. Volume control, 400-1000 Hz tone control, on/off switch, power on LED, 1/4 inch key jack, 3.5 mm external speaker jack, uses 12 VDC. All metal enclosure 4 3/4x1 1/2x5 in.

Save $15.85! **MFJ-554X, $119.95.** Includes MFJ-554 Code Oscillator, MFJ-281 *ClearTone™* speaker, MFJ-550 Telegraph Key, & MFJ-1312D AC adapter.

Classroom Morse Code Tutor

MFJ-414
$219.95
Ship Code B

The Cadillac of all Morse Code trainers! For VECs, Elmers, teachers, ham clubs, schools and hams who want the best. Has everything in the famous MFJ-418 *Pocket Size Morse Code Tutor™* plus . . . Hear powerful classroom audio from its built-in speaker/ amplifier with true sinewave sidetone and no harsh keyclicks. Down/upload custom practice groups from PC with serial port . . . Store 16 FCC exams for VECs . . . Print correct answers using printer port . . . Record quality code tapes with tape output . . . Send *on-the-air* CW practice with HF/VHF radio interface. . . Use full featured memory keyer with 1000 character memory. Serial port and open end HT cables included. 110 VAC /12VDC operation. 8 1/2Wx2 1/4Hx6D inches.

MFJ *Pocket size* Morse Code Reader™

Hold near your receiver -- it instantly displays CW in English!

Instant Replay . . . 32 Character LCD . . . High-Performance Modem . . . Computer Interface . . . Battery Saver . . .

CQ CQ DE KY7I K
20 WPM

Is your CW rusty? Relax and place this tiny pocket size MFJ Morse Code Reader near your receiver's speaker . . .

MFJ-461
$89.95
Ship Code A

Then watch CW turn into solid text messages as they scroll across an easy-to-read LCD display.

Use it as a backup in case you mis-copy a few characters - - it makes working high speed CW a breeze - - even if you're rusty.

Practice by copying along with the MFJ-461. It'll help you learn the code and increase your speed as you instantly see if you're right or wrong.

Eavesdrop on interesting Morse code QSOs from hams all over the world. It's a universal language that's understood the world over.

Automatic Speed Tracking

MFJ *AutoTrak*™ automatically locks on, tracks and displays CW speed up to 99 Words-Per-Minute.

Simply place your MFJ-461 close to your receiver speaker until the lock LED flashes in time with the CW.

Four Display Modes

1. Bottom line scrolls and fills with text, then that entire line is displayed on top line until bottom line refills -- makes reading text extra easy! Automatically displays speed in WPM.
2. Same as 1, without speed display -- gives you maximum text display.
3. Top line scrolls, bottom line displays speed in Words-Per-Minute.
4. Both top and bottom lines scroll.

Two-line LCD display has 32 large 1/4 inch high-contrast characters.

MFJ Instant Replay

The last 140 characters can be instantly replayed. Lets you re-read or check copy if you're copying along side the MFJ-461.

High Performance Modem

Consistently get solid copy from MFJ's high performance PLL (phaselock loop) modem. Digs out weak signals. Even tracks slightly drifting signals.

Of course, nothing can clean up and copy a sloppy fist, especially weak signals with lots of QRM/QRN.

Computer Interface

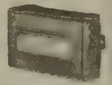
The MFJ-461's serial port lets you display CW text full screen on a bright computer monitor -- just use your computer serial port and terminal program.

More Features

When it's too noisy for its mic pickup, connect it to your radio with a cable.

Battery saving feature puts MFJ-461 to sleep during periods of inactivity. It wakes up and decodes when it hears CW.

Uses 9 Volt battery (not included).



True Pocket Size

Fits in your shirt pocket with room to spare - smaller than a pack of cigarettes. Tiny 2¼x3¼x1 in. 5½ ounces.

Accessories

MFJ-26B, $9.95. Soft leather protective pouch for MFJ-461. Clear plastic overlay for display, push button opening, strong, durable pocket or belt clip secures MFJ-461.

MFJ-5161, $16.95. MFJ-461 to computer serial port cable (DB-9).

MFJ-5162, $7.95. Connects MFJ-461 to radio external speaker 3.5 mm jack.

MFJ-5163, $10.95. Connects MFJ-461 and another accessory to radio external speaker, 3.5mm.

Switch any two Mics to any two Rigs

MFJ's new MFJ-1263 *Microphone Control Center* lets you mix and match *any* two microphones to *any* two transceivers.

The microphones or transceivers can have 8-pin round or 8-pin modular connectors. You don't have to change connectors or rewire -- just push buttons.

Your favorite microphones will never become obsolete.

You can use your favorite microphone with your present *or* new rig by pushing a button.

You can instantly switch from a hi-fi ragchewing mic to a hard-hitting DX mic when a rare one suddenly pops up.

You can plug in an PTT foot switch (**MFJ-1709, $19.95**) or let your computer or voice keyer (**MFJ-434B, $199.95**) control your PTT line to free your hands for contesting and DXing.

Plug in a boom mic/headset (**MFJ-393, $49.95**) to save the day during noisy field day or multi-operator contesting.

You can plug in your headphones and an external speaker (**MFJ-281, $12.95**).

A headphone volume control eliminates the need to readjust your rig's volume when you switch the speaker on. The headphones are always active. A push button turns the speaker on or off.

MFJ-1263
$119.95
Ship Code B

When you want to use your desk or hand mic just push a button.

An input jack and On/Off switch is provided to insert external audio into the microphone audio input line. Great for inputting sound card, SSTV, AFSK, TNC and other audio sources.

The MFJ-1263 works with any radio - - Kenwood, Yaesu, Icom, Alinco and compatible transceivers - using an 8-pin round or modular microphone jack. Internal jumpers configure the MFJ-1263 for your radio -- your mics never become obsolete! 6Wx1½Hx5D inches. Includes *one* MFJ-5398 and *one* MFJ-5397MX radio cables.

ORDER Extra Radio Cables!

MFJ-1261/1260/1263 to transceiver cables, $17.95. Order **MFJ-5398** for 8-Pin Round; **MFJ-5397MX** for 8-Pin Modular.

MFJ-1261
$109.95
Code A

MFJ-1261, $109.95. Like MFJ-1263 but has one mic input and two radio outputs. *One* MFJ-5398, MFJ-5397MX included.

MFJ-1260
$99.95
Code A

MFJ-1260, $99.95. Same as MFJ-1263 but has two microphone inputs and one radio output. *One* MFJ-5398 and *one* MFJ-5397MX radio cables included.

MFJ-1251 Universal Microphone Converter

MFJ-1251
$29.95
Code A

Convert *any* 8-pin round or modular microphone for use with *any* 8-pin round or modular radio.

Example: You want to use your favorite Yaesu FT-2000 8-pin round microphone with your Icom IC-706 rig. Or you bought a modular soundcard interface, but now you have an 8 pin round rig. No need to buy a new mic or accessory! Use your favorites and save money by using what you already have!

Internal jumpers set *any* microphone to match *any* radio. Supplied with one 8-pin round and one 8-pin modular output cable to radio.

Save Your Voice with the MFJ Contest Voice Keyer

Use 8-pin modular or 8-pin round microphone plug!

Let this microprocessor controlled MFJ Contest Voice Keyer™ call CQ, send your call and do contest exchanges for you in your own natural voice!

Store frequently used phrases like "CQ Contest this is AA5MT", "You're 59" . . . "QTH is Mississippi" and more! Contest by pressing a few buttons and save your voice.

You can record and play back five natural sounding messages in a total of 75 seconds. EEPROM technology keeps messages stored for up to 100 years -- no battery backup needed.

You can repeat messages continuously and vary the repeat delay from 3 to 500 seconds. Makes a great voice beacon and calling CQ is so easy. A receive audio jack lets you record and play back off-the-air signals -- great help if you didn't get it right the first time! No more "Please repeat".

A playing message can be halted by pressing the Stop Button, your PTT mic button or by your VOX PTT line. A closure to ground via remote control or computer also halts messages.

STOP
MSG 1
MSG 2
MSG 3
MSG 4
MSG 5
MESSAGES
MFJ VOICE KEYER
MODEL
MFJ
VOLUME
POWER
REPEAT DELAY

MFJ-434B
$\$199^{95}$
Ship Code B

Has jack for remote or computer control (using CT, NA, TR or other program and its interface). Lets you select, play and cancel messages.

The MFJ-434B is transparent to your microphone -- your mic's audio characteristics do not change when your MFJ-434B is installed. Dual controls make it easy to tailor audio level to match your voice.

All audio lines are RF filtered to eliminate RFI, audio feedback and distortion. An audio isolation transformer totally eliminates hum and distortion caused by ground loops.

It's easy to use -- just plug in your 8 pin microphone cable and plug the MFJ-434B shielded cable into your transceiver's mic connector. Internal jumpers let you customize it to Kenwood, Icom, Yaesu, Alinco or Radio Shack rigs. Use your station or built-in microphone for recording.

Built-in speaker-amplifier lets you monitor stored messages. 3.5 mm speaker/headphone jack. SMT technology.

Use 9 Volt battery, 9-15 VDC or 110 VAC with optional MFJ-1312D, $15.95. Measures a compact 6½Wx2½Hx6½D inches.

MFJ-73, $34.95. Remote Control Head with cable for **MFJ-434B** lets you set the MFJ-434B out of the way.

MFJ Desk Mic/Ham Station Console

A high-sensitivity ceramic microphone element (10.5 inches with *FlexNeck*™) bends and stretches to your most comfortable operating position. A fine mesh metal grill helps to eliminate background noise.

MFJ-299 has a high quality compressor amplifier with high, medium, and low selection switches. It always sends out a constant and optimum level without distortion, regardless of audio input level.

Equipped with a built-in graphic equalizer with center frequencies of 270, 540, 1000 and 2000 Hz. Gives best audio quality for FM mode and max efficiency for SSB.

Has On-Air indicator and an output level volume control.

On-Air blinks on and off when in receiving mode and will light up continuously when transmitting.

MFJ-299 is equipped with PTT momentary and PTT lock switches that allow you to switch between long one-sided QSOs and fast two-sided conversations.

The frequency up/down switches let you operate your transceiver at your desktop microphone. 4 function keys (CALL, VFO, MR, PF) are for Kenwood transceivers only.

An output level meter lets you adjust the output level NOT to exceed 0 dB.

A revolutionary triple radio input socket makes it super easy to install for any model transceiver: Icom, Yaesu, Kenwood and compatible transceivers. See cable chart below.

Built-in battery check circuit. Press power switch and the level meter shows battery condition with power voltage for a few seconds.

MFJ-299
$\$99^{95}$
Ship Code B

MFJ-297 Desk Mic

MFJ-297
$\$69^{95}$
Ship Code A

MFJ-297 speech frequency tailored microphone cuts through noise and QRM. Switch for powerful SSB punch or full range broadcast quality FM/AM. Has Silibant Sound Shield™, momentary/locking PTT switch, On-Air LED, frequency up/down button, output level control and more! 4Wx11/2H6D inches with 11 inch flexible boom. 1 lb. Use 2 "AA" batteries. Select cable from chart, below.

GooseNeck™ Microphone Holder

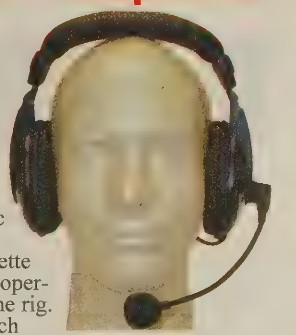
- Heavy-duty all-metal base stays put!
- *GooseNeck*™ gives super flexibility to move your mic where you want!
- Tough, Durable plastic microphone clip holds tight!
- Turns your favorite handheld microphone into a super attractive desktop mic!

MFJ-390
$\$14^{95}$
Ship Code A

8 Pin Round Mic Plug - $17.95 each				*8 Pin Modular Mic Plug - $17.95 each*		
MFJ Desk Mic	**ICOM**	**Kenwood**	**YAESU**	**ICOM**	**Kenwood**	**YAESU**
MFJ-297	MFJ-5397I	MFJ-5397K	MFJ-5397Y	MFJ-5397MX	MFJ-5397MX	MFJ-5397MY
MFJ-299	MFJ-5397I	MFJ-5397K	MFJ-5399Y 5399Y2 (FT-847)	MFJ-5397MX	MFJ-5397MX	MFJ-5397MX

MFJ *Professional* Boom-Mic Headphones

MFJ-393 I/K/Y
$\$69^{95}$
Ship Code A



This professional grade MFJ Boom-Mic Head-phone set is for contesting, DXing and traffic nets. Comfort designed leatherette padding lets you operate for hours at the rig.

Superb 3/4 inch thick padding on each ear and headband. MFJ-393 is so super lightweight, you won't even know they're there!

Headband adjusts for perfect fit to keep out external noise. Frequency response is enhanced for communications to bring out speech fidelity you never knew existed. Signals never sounded so clear!

The flexible microphone boom lets you position the mic comfortably at an optimum distance to minimize silibant sounds. MFJ's frequency tailored microphone element lets you bust through noise and QRM! 6 feet of cable lets you move about your ham station!

Even casual operators will appreciate the advantages of MFJ's superbly crafted Boom-Mic headphones for hands-free operating and DXing at an incredibly low MFJ price.

MFJ-393 I/K/Y, $69.95. Headphones with pre-wired adapter cable. **MFJ-393I** for 8-pin round Icom and compatibles, **MFJ-393Y** for Yaesu 8-pin round and compatibles, **MFJ-393K** for Kenwood 8-pin round. **MFJ-393MI** for 8 pin modular Icom and compatibles, **MFJ-393MY** for Yaesu and **MFJ-393MK** for Kenwood and compatibles.

MFJ-393, $49.95. Headphones only. Does not include prewired radio cable.

MFJ-624E Hybrid Phone Patch gives crisp, clear hum-free audio

MFJ-624E *Deluxe Hybrid Phone Patch* gives you crisp, clear, hum-free audio, and that's what phone patching is all about. It's jumper selectable for Kenwood, Icom, Yaesu, and Alinco rigs with 8 pin mic connectors.

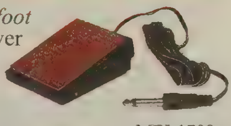
Use VOX or push-to-talk. RF pi-filters and PC board eliminates RF feedback. Use with virtually any rig. Built-in VU meter monitors phone line levels to prevent cross talk. Adjust null depth for maximum isolation between rig. Separate XMTR /receiver gain controls eliminate need to readjust your rig after patching. *Null* control, standard phone connection, RJ-11. Speaker jacks, audio in/audio out. 8x2x6". Use 12VDC, 9V battery or 110 VAC with **MFJ-1312D, $15.95.**

Includes output cables to connect transceivers with 8 pin round or 8 pin modular mics.

MFJ-624E
$\$159^{95}$
Ship Code B

MFJ PTT Foot Operated Switch

Add the luxury of foot control PTT transceiver operation. Keeps your hands free for logging, computer operation and tuning. Reduces fatigue and improves efficiency -- could be the difference between winning or losing a contest. 2½Wx3½Dx1¼H". Non-skid pad foot pedal. 1/4 in. phone plug. 10 ft. cord.



MFJ-1709
$\$19^{95}$
Ship Code A

MFJ *SpeechArticulator*™ *improves transmit speech intelligibility*

MFJ-653 *hamProAudio™ Speech Articulator*™ greatly improves *transmit* speech intelligibility for super punch!

Based on extensive speech research, the MFJ-653 uses optimized frequency shaping to concentrate the energy in the band of frequencies where speech intelligibility is concentrated. It also removes powerful low frequencies that overwhelms the important high frequencies that carry intelligibility.

You can boost the highly intelligible band of frequencies centered around 2 kHz by *up to 16 dB* and gently remove the powerful, low frequencies that have little intelligence. The high-pass filters cutoffs are 1.1 kHz and 500 Hz.

Using a SSM-2166 broadcast industry speech compression IC the MFJ-653 *syllabic* compressor with its adjustable 15 to 1 compression ratio can nearly *double* your RF output power with low distortion.

MFJ-653
$149.95
Ship Code A

COMPRESSION LEVEL
SET
DELAY
2 KHz
HI-PASS FILTER
POWER
DOWNWARD EXPANSION
MFJ
MFJ-653
Mobile Microphone Control Center

A highly effective noise gate (downward expansion) with front panel level and delay controls smoothly removes annoying background noise picked up during speech pauses.

The results? You'll be heard and *understood*. Powerful, highly intelligible speech gives you a commanding presence that slices through DX clutter!

You can use any transceiver and with its *UniversalMic™ Interface*, you can use almost any microphone (high/low impedance, dynamic and electret) with the MFJ-653, regardless of whether or not the microphone was designed for your particular transceiver.

Microphone input jacks include a RJ45 modular, an 8 pin round and MFJ's exclusive *programmable* 3.5-mm. MFJ's programmable 3.5 mm jack lets you use Heil series, MFJ-393 boom-mic headphones or even an inexpensive computer boom-mic headset and provides phantom voltage when needed.

An adjustable preamplifier lets you even use low-level output microphones.

Compact size -- 5Wx1¾Hx4¾D inches. Takes little room on your desk and small enough to use mobile *where you really need it*.

Output cables to connect transceivers with 8-pin round or 8-pin modular microphone connectors are included.

Use 12 VDC or 110 VAC with optional MFJ-1312D power supply.

SO2R switches Mic/PTT/keyer/soundcard for 2 radios

Have you got two radios, but only one keyer, one headphone set, one paddle and other accessories?
MFJ's Single Operator/Two Radio Switch (SO2R) is at your rescue! Save money, reduce clutter . . .

SELECTOR
MIX CONTROL

MFJ-643
$139.95
Ship Code A

Have you got two radios, but only one keyer, one headphone set, one paddle and other accessories? **MFJ** will unclutter your operating position and save you money -- you only need one microphone, keyer, soundcard interface, iambic paddle, etc.

MFJ-643 lets you operate two radios with the following accessories: Desktop and headset Microphones, keyers/keys/paddles, soundcard interfaces, modems, etc.

The MFJ-643 is designed for easy use. Just set the internal jumpers for the MFJ-393 Professional Boom-Mic Headphones, Heil series headphones, a computer boom-Mic or computer boom-mic Headset.

You get *instant* LED visual indication of the transmit audio path so you know which radio your audio is being sent to.

On receive, you can instantly choose between *Mix*, *Radio 1*, *Stereo* or *Radio 2* depending on how you want the audio presented to your headphones.

The input source connector is a 3.5mm stereo jack. Your input source can be a dynamic or electret mic (low or high impedance), stereo or monaural receiver audio, sound card or modem, or key or keyer.

You have a choice of PTT functions: Use your microphone's PTT switch, a foot or hand switch or the convenient PTT switch located on the front of the MFJ-643.

There are also additional inputs, dual outputs for your keyer, and two lines to switch an antenna between your radios, key an amplifier, or anything else you want to use them for.

Use 12 VDC or 110 VAC with optional MFJ-1312D power supply. Compact 7¼Wx2¾Hx5½D inches.

MFJ *hamProAudio*™ Universal SO2R Switch

Enhanced version of the MFJ-643 interfaces with virtually any mic connector

SELECTOR
MIX CONTROL

MFJ-644
$159.95
Ship Code A

MFJ-644 is similar to the MFJ-643, but is enhanced with the *UniversalMic™ Interface*. This MFJ exclusive lets you use any mic with any radio. Internal jumpers configure any microphone to any radio.

MFJ-644 also gives you three additional input sources: **1)** An 8-pin modular (RJ-45) input jack, **2)** An 8 pin round input jack, and . . . **3)** MFJ's own input 3.5 mm jack. The 3.5 mm jack allows the user to choose audio and PTT functions from the Heil series of Boom-Mic Headsets and also provides phantom voltage on the tip for the MFJ-393 Boom-Mic Headphones or on the ring for a computer Boom-Mic or computer Boom-Mic headset. Compact 7¼Wx2¾Hx5½D inches.

MFJ *hamProAudio*™ Computer-controlled SO2R Switch

MFJ-645
$249.95
Ship Code A

Universal computer interface provides seamless interaction with computer logging and *SO2R* programs for effortless *"Single Operator/2 Radios"* operation.

MFJ-645 extends capabilities of MFJ-644 and includes computer control -- Permits MFJ-645 to interoperate with WinEQF, CT, NA, TRLog, and Write-Log.

Its *Universal Mic™ Interface* lets you use any mic with any radio. Internal jumpers configure any microphone to any radio.

MFJ-645 easily interfaces with the MFJ-1275 and MFJ-1279 Sound Card Interfaces giving you full control over your digital modes. You can choose which radio is in the digital mode, or you can even operate dual digital modes. And besides the normal manual PTT capabilities as those of the MFJ-644, when connected to the MFJ-1275 or MFJ-1279 Sound Card Interfaces your digital mode can also control the key line.

Use 12 VDC or 110 VAC with optional MFJ-1312D power supply. Measures 11¼Wx5½Hx2½D inches.

***All* MFJ *hamProAudio*™ accessories are designed with the *serious* ham in mind. The choice of components and *extensive RF filtering and bypassing* allow for a unit that is designed to be used in an RF environment.**

MFJ *hamProAudio*™ 2-Radio Headphone Selector/Mixer

MFJ
MFJ-640
MFJ 2-Radio Mixer

MFJ-640
$49.95
Ship Code A

MFJ-640 combines or selects audio from two different receivers -- Great for operating "split" for HF contests and DXing, or cross-band for VHF/UHF satellite.

Just connect the audio output of two receivers to the two 3.5mm audio connectors on back of the unit. Then plug in your stereo headphones and you are ready to go.

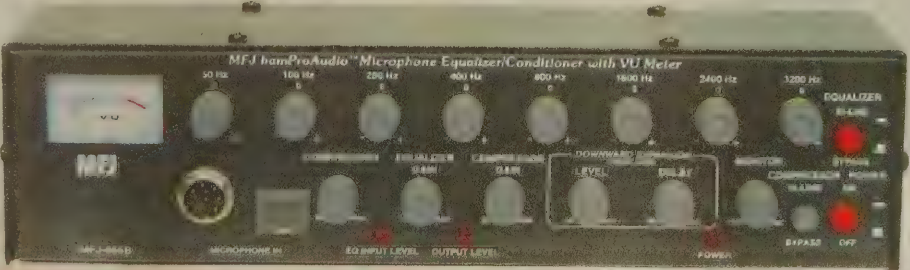
MFJ-640 provides both 1/4" and 3.5mm stereo headphone jacks -- no need for adapters!

From the front panel you can select the audio output desired - Mix, Radio 1, Stereo, or Radio 2. In the Mix mode both radios are combined in both the left and right earphones, and the audio mixing levels between the two radios are controllable. In the Stereo mode, Radio 1 is heard in the left ear and Radio 2 is heard in the right ear.

Compact 4¾Wx2⅛Hx5D inches.

MFJ *hamProAudio*™ Equalizer/Conditioner

MFJ hamProAudio™ console gives you . . . 8-Band Equalizer . . . Downward Expansion noise gate . . . Smooth, clean Compression . . . Limiter . . . Low noise Preamp . . . Universal Mic-Interface . . . VU Meter . . . Headphone Monitor . . .Auxiliary Input . . .Push-to-Talk jack . . .



MFJ brings Pro Audio to ham radio!

MFJ makes sophisticated Pro Audio gear user friendly, affordable and RF bullet-proof. MFJ adapted Pro Audio's heart and soul to ham radio communications.

The MFJ-655B *all-in-one* audio console gives you *Pro Audio* processing that makes your audio professional sounding.

It gives you all the capabilities you'll ever need . . . 8-Band Equalizer . . . Downward Expansion noise gate . . . clean Compressor . . . smooth Limiter . . . low noise Preamp . . . universal microphone interfacing . . . impedance matching . . . level control . . . and RF/audio isolation.

Its processing is so smooth and transparent, no one will detect its presence. All they will hear is your outstanding audio that brings you unsolicited compliments.

A built-in headphone monitor lets you hear improvements as you make them and a VU-meter lets you accurately adjust levels.

An auxiliary input lets you use other audio sources and a push-to-talk jack lets you use microphones without PTT.

The MFJ-655B uses the Analog Devices SSM2166. This professional quality audio conditioner gives outstanding performance over an exceptionally wide bandwidth with very low noise and very low total harmonic distortion, typically .25%.

An *8 Band Equalizer* lets you adjust your voice for full quality ragchewing audio or powerful, pileup penetrating audio.

An adjustable *Downward Expansion* noise gate gives you transparent background noise reduction.

A clean, low-distortion *Compressor* gives you more powerful, richer, fuller sounding speech with more talk power.

A smooth *Limiter* keeps instantaneous audio peaks from overdriving your transmitter and prevents SSB distortion and splatter.

MFJ-655B
$219.95
Ship Code B

Front panel controls let you easily adjust input and output levels.

You can use nearly any microphone with any transceiver with its *Universal Mic-Interface*, pre-amp, mic element voltages, impedance matching and PTT jack.

Plug in your headphones to *hear* your rig's received audio or plug in your MFJ, Heil or computer boom-mic headset to talk *and* hear.

New! The Compressor and Equalizer can be used independently of each other.

8 Band Equalizer

The MFJ-655B voice band equalizer divides the speech frequencies into eight bands -- 50, 100, 200, 400, 800, 1600, 2400 and 3200 Hz. You can increase or decrease the gain of each band by 16 dB.

For ragchewing, you can adjust for rich, full quality audio. And for Dxing, you can increase the high and reduce the low frequencies for a highly intelligible signal that lets you punch through DX pileups.

You can turn ordinary, even poor microphones into pricey professional sounding ones.

Equalization compensates and improves your entire audio chain -- from your voice to your microphone and through your radio.

Downward Expansion noise gating

Downward expansion noise gating eliminates or greatly reduces background noise when you stop speaking -- no more amplifier fan noise, dogs barking, kid's music or traffic.

Downward expansion is a professional audio technique. When you stop talking it smoothly attenuates low-level noise by reducing gain instead of abruptly cutting off like a noise gate -- background noise smoothly vanishes.

You control the level at which downward expansion starts and the delay when it ends.

Clean, Smooth Compression

Natural unprocessed voice has peaks and valleys. The average power of SSB speech is only 15 to 30 percent of peak power.

If instantaneous peaks are reduced, average power increases significantly.

The superb Analog Devices SSM2166 provides smooth, clean, almost transparent compression over a very wide bandwidth. It reduces speech peaks as much as 15 times.

Just a small amount of *clean* compression is impressive and gives you more powerful, richer and fuller sounding audio.

For DXing where every ounce of power counts, you can use more compression to increase average power.

Most of the speech power is in the lower speech frequencies.

Attenuating these lower frequencies with the equalizer reduces their power.

This lets you increase compression for weaker high frequencies -- where most of the speech intelligibility lies.

The MFJ-655B compressor does a superb job in creating an exceptionally clean, higher average power SSB signal.

Limiting -- splatter prevention

If occasional large audio peaks exceed a fixed set level, the compressor's limiting function quickly attenuates them.

Limiting prevents over-driving your microphone input, transmitter and amplifier causing SSB distortion and splatter.

In the MFJ-655B, compression and limiting work jointly to provide a level, constant output.

Universal Mic-Interface/Pre-Amp

Standard XLR, 8-pin round or 8-pin modular microphone jacks are provided on the back panel. You can also plug in your MFJ, Heil or computer boom-mic headset.

A PTT jack for a foot switch or other lets you use microphones without push-to-talk.

Its *Universal Mic-Interface* lets you use any mic with any radio. Internal jumpers configure any microphone to any radio.

A front panel controlled low noise preamp gives you up to 20 dB gain.

Select 600 Ohm, 200 Ohm or Hi-Z input impedances to match dynamic, electret or high impedance crystal/ceramic microphones. Has 8, 5, and $1^1/_2$ VDC mic voltages.

One MFJ-5398 for 8-pin round and *one* MFJ-5397MX for 8-pin modular included.

Use 12 VDC or 110 VAC with MFJ-1312D, $15.95. $10^3/_4$Wx$3^1/_4$Hx5D inches.

hamProAudio™ Equalizer/Conditioner

MFJ-654
$199.95
Ship Code B

More compact and has everything that the MFJ-655 has except for the built-in VU meter. Measures 9Wx$3^1/_4$Hx5D inches.

hamProAudio™ transmit audio *Conditioner*

MFJ-651
$129.95
Ship Code B

Transmit audio Microphone Conditioner. Downward Expansion noise gate, Compressor, Limiter, low noise Preamp, *Universal Mic-Interface*, headphone monitor, PTT, Auxiliary-in, RF proof, aluminum case. 9Wx$2^1/_4$Hx5D in.

hamProAudio™ transmit audio *Equalizer*

MFJ-652
$129.95
Ship Code B

Voice Band Equalizer (300, 600, 1200, 2400 Hz center frequencies), low noise Preamp, *Universal Mic-Interface*, headphone monitor, PTT, Auxiliary-in, RF proof, aluminum case. $7^1/_4$Wx$2^1/_4$Hx5D inches.

MFJ *Speech Intelligibility* Enhancer

...makes barely understandable speech highly understandable!

Speech Intelligibility Enhancer
VOLUME
BALANCE
300Hz
600Hz
BYPASS
INPUT A/B
SPEAKER
PHONES
POWER
ON OFF
MFJ

MFJ-616
$189.95
Ship Code B

"What did you say?"
Can you hear but . . . just can't always understand what people are saying?

As we get older, high frequency hearing loss reduces our ability to understand speech. Here's why . . .

Research shows that nearly *half* the speech intelligibility is contained in 1000 to 4000 Hz range, but contains a miniscule 4% of total speech energy.

On the other hand, the low frequencies, 125 to 500 Hz have most of the speech energy (55%) but contribute very little to intelligibility -- only 4%.

To dramatically improve your ability to understand speech, you must:

First, drastically increase the speech energy above 500 Hz, where 83% of the speech intelligibility is concentrated.

Second, drastically reduce speech energy below 500 Hz where only 4% of speech intelligibility lies.

The MFJ-616 splits the audio speech band into four overlapping octave ranges centered at 300, 600, 1200 and 2400 Hz. You can boost or cut each by nearly 20 dB.

A balance control and separate 2½ Watt amplifiers let you equalize perceived loudness to each ear so both ears help.

By boosting high and cutting low frequencies and adjusting the balanced control, speech that you can barely understand become highly understandable!

Even if you *don't* have high frequency hearing loss, you'll dramatically improve your ability to understand speech.

QST for April, 2001 said *"I expected a subtle effect at best, but I was astonished . . . The result was remarkably clean, understandable speech without hissing, ringing or other strange effects . . . made a dramatic improvement . . ."*

Immune to RFI. Has phone jack, on/off speaker switch, 2 inputs, bypass switch. 10Wx2½Hx6D". Needs 12 VDC.

MFJ-1316, $21.95. For 110 VAC operation. Provides 12 VDC/1.5 Amps.

MFJ-72, $69.80. *All-in-one MFJ-616/618 Accessory Pack.* Includes MFJ-392B headphones, two MFJ-281 speakers and MFJ-1316 power supply. ***Save $7!***

Dual Channel *Speech Intelligibility Enhancer*

MFJ-618
$219.95
Ship Code B

Dual Channel Speech Intelligibility Enhancer
MFJ
BYPASS
INPUT A/B
SPEAKER
PHONES
POWER
MODEL MFJ-618

The new MFJ-618 has all of the speech-enhancing features of the MFJ-616 *and* gives you *separately* adjustable frequency channels for your left and right ears.

This lets you compensate for deficiencies in your hearing that may be dramatically different for each ear. By equalizing the frequency response of *both* ears, you vastly improve speech intelligibility.

The MFJ-618 *Sound-Field Expansion*™ adds a 3-dimensional spatial presence that can greatly improve speech intelligibility by up to an additional 3 dB. It's like hearing and feeling the presence of a person directly in front of you. 10Wx3Hx6D". 12VDC or 110 VAC w/MFJ-1316, $21.95.

MFJ Cleartone™: Our most Popular Speaker

MFJ-281
$12.95
Ship Code A

Plug in this MFJ *Clear Tone*™ speaker and bring out speech fidelity that you never knew existed.

MFJ-281 restores the smooth sound of sinewaves that CW naturally generates and makes it easy to understand and copy.

The MFJ-281 *ClearTone*™ speaker was carefully designed to improve the intelligibility of speech in the frequency range of 600 to 4000 Hz while reducing undesirable noise, static and hum.

3-in. speaker handles 8 Watts. 8 Ohms impedance, has six feet of cord terminated with a 3.5 mm mono plug.

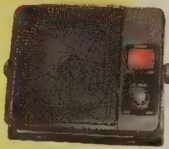
Tiny, compact 3¾x3x2¼ inches, but powerful booming sound!

MFJ *CyberEAR* ™!

MFJ-388
$9.95
Ship Code A

Tiny powerful MFJ *CyberEar*™ plugs in and loops over ear -- captures and amplifies sounds by 12 dB! Extends your hearing range, helps you hear every word at hamfests and club talks -- even if you're on the back row! Great for eyeball QSOs. Volume control, on/off switch. For left or right ear. 3 interchangeable ear plugs. Flesh color -- hardly noticeable. Super lightweight -- 10 grams with battery! Includes batteries. Hear even better -- buy one for each ear! 30 day money back if not absolutely delighted. Not a hearing aid.

MFJ Amplified Mobile Speaker



MFJ-383
$29.95
Ship Code A

Perfect for mobile use -- great clarity and clear tones on CW and SSB -- excellent swivel mounting bracket! Has fused plug for the cigarette lighter socket of a base station power supply. Large 2¾" speaker with a 3-inch fine metal mesh grill reduces undesirable noise, static and hum. 6 watts output, 8 Ohms impedance. 8 ft. cord, a 3.5 mm mono jack plug with 13 foot cord, on/off power switch, gain control knob. Requires 12 VDC at 2 amps for maximum volume, max 1 watt audio source. Powerful but compact -- 4¾Wx3½Hx1¾D inches.

MFJ Compact Mobile Speaker

MFJ-280
$19.95
Ship Code A

Enjoy superb audio and convenience with this economical mobile speaker. Matches 8 and 4 ohm impedances. Handles 3 Watts. 30-in cord lets you get it to your rig's speaker output. Tiny 2½x2x3 inches fits anywhere. Tough ABS plastic cabinet is built to last.

Super CyberEAR™

MFJ-389
$9.95
Ship Code A

Hear everything! Capture and amplify sounds up to 50 dB! Left or right ear plugs, volume control, extremely small. Not a hearing aid.

MFJ Deluxe Communication Station Speaker

MFJ brings you ultra high quality communication audio with ham radio's most advanced communication speaker.

How? By using *America's most modern speaker design, advanced speaker cone and voice coil materials and construction, and a carefully crafted, accoustically-rigid cabinet.*

Handsome black cabinet measures 5¼Wx9¾Hx6½D in. You won't believe the clarity and depth of the audio when you hear the incredible improvements in speech intelligibility and CW tone. 4-in. full range speaker.

It also reduces listening fatigue. It can literally transform your transceiver!

MFJ-385B
$39.95
Ship Code C

The smooth, wide range response of the MFJ-385B gives you faithful reproduction with no hint of unwanted resonances and sound coloration. Speech becomes more intelligible and easier to understand.

Pure sine wave tones of CW make copying and tuning in signals easier and faster.

Amplified *ClearTone*™ Speaker

MFJ-382
$39.95
Ship Code A

MFJ's Deluxe *ClearTone*™ speaker is an excellent 1-watt amplified speaker for many uses.

The MFJ-382 gives superb, loud and powerful *ClearTone*™ audio. Speaker is 3-in. diameter.

Adjustable from barely audible to high volume, this rugged speaker is sturdy and compact. All metal cabinet with rubber feet. 3½x1¾x4½ in. 9 volt battery (not included) or 110 VAC with **MFJ-1312D, $15.95.**

MFJ *Noise-Canceling* Filters Wipe Out Interference

MFJ-1026
$199.95
Ship Code B

WIPE
Out Noise!
MFJ
MFJ DELUXE NOISE CANCELING SIGNAL ENHANCER

***Wipe** out noise and interference before it gets into your receiver with a 60 dB null!*

Eliminate all types of noise -- severe power line noise from arcing transformers and insulators, fluorescent lamps, light dimmers, touch controlled lamps, computers, TV birdies, lightning crashes from distant thunderstorms, electric drills, motors, industrial processes.

It's more effective than a noise blanker because interference much stronger than your desired signal can be completely removed without affecting your signal.

It works on all modes -- SSB, AM, CW, FM, frequences from BCB to lower VHF.

Null out strong QRM on top of weak rare DX and then work him! You can null out a strong local ham or AM broadcast station to prevent receiver from overloading.

Use MFJ-1026 as an adjustable phasing network. You can combine two antennas to give you various directional patterns.

Null out a strong interfering signal or peak a weak signal at a push of a button.

Easy-to-use! Plugs between transmitting antenna and transceiver. To null, adjust amplitude and phase controls for minimum S-meter reading or lowest noise. To peak, push reverse button.

Use built-in active antenna or an external one. MFJ's exclusive *Constant Amplitude Phase Control*™ makes nulling easy.

RF-sense T/R switch automatically bypasses your transceiver when you transmit. Adjustable delay time. 12 VDC or 110 VAC with **MFJ-1312D, $15.95**. Measures 6½X1½X6¼ inches.

MFJ-1025
$179.95
Ship Code B

MFJ-1025, $179.95. **MFJ-1025** is like MFJ-1026 less built-in active antenna, use external antenna. Same size, power requirements.

MFJ *Tunable, Programmable* Brick Wall DSP Filter

***MFJ's tunable super DSP filter* automatically eliminates heterodynes, re-duces noise and interference simultaneously on SSB, AM,CW, packet, Amtor, PACTOR, RTTY, SSTV, WeFAX, FAX, weak signal VHF, EME, satellite.**

You get MFJ's tunable FIR linear phase filters that minimize ringing, prevent data errors and have "brick wall" filter response with up to 57 dB attenuation 75 Hz away.

Only MFJ gives you 5 tunable DSP filters. You can tune each lowpass, highpass, notch, and bandpass filter including optimized SSB and CW filters. You can vary the bandwidth to pinpoint and eliminate interference.

Only MFJ gives you 5 factory pre-set filters and 10 programmable pre-set filters that you can customize. Instantly remove QRM with a turn of a switch!

MFJ's automatic notch filter searches for and eliminates multiple heterodynes.

You also get MFJ's advanced adaptive noise reduction. It silences background noise and QRN so much that SSB signals sound like FM.

The automatic notch and adaptive noise reduction can be used with all relevant tunable pre-set filters.

Automatic gain control (AGC) keeps audio level constant during signal fade.

Tunable bandpass filters

Narrow band signals like CW & RTTY jump out of QRM when you switch in MFJ's tunable FIR bandpass filters.

You can tune the center frequency from 300 to 3400 Hz, and vary the bandwidth from 30 Hz to 2100 Hz -- from super-tight CW filters to wide razor-sharp Data filters.

You can use two tunable filters together. For example, tune one to mark, one to space and set bandwidth tight for a super sharp RTTY filter.

MFJ tunable DSP filter
Tunable Filters
Noise Reduction
Volume
MFJ

MFJ-784B
$279.95
Ship Code B

You can tune the lower cutoff frequency 200 to 2200 Hz and the upper cutoff frequency 1400 to 3400 Hz. This lets you create custom filters for voice, data and other modes. Signals just 75 Hz away literally disappear -- they are reduced 57 dB!

Automatic notch filter

MFJ's automatic notch filter searches for and eliminates multiple heterodynes in milli-seconds. It's so fast, that even interfering CW and RTTY signals can also be eliminated. Selectively remove unwanted tones using the two manually tunable notch filters -- an MFJ exclusive. Knock out unwanted CW stations while you're on CW.

Adaptive Noise Reduction

Noise reduction works in all filter modes and on all random noise -- white noise, static, impulse, ignition noise, power line noise, hiss.

The LMS algorithm gives you up to 20 dB of noise reduction. Noise reduction is adjustable to prevent signal distortion.

15 Pre-set filters, or customize

Select from 15 pre-set filters. Use for SSB, AM, CW, packet, Amtor, Pactor, RTTY, SSTV, WeFAX, FAX or any mode.

If you don't like our pre-set filters, you can program your own -- an MFJ exclusive! Save center frequency/bandwidth, lowpass/highpass cutoffs, auto/manual notch, noise reduction -- all filter settings -- in 10 programmable filters.

More MFJ DSP Filter Features

MFJ's *tunable Spotting Tone*™ -- accurately tunes even the narrowest CW filter.

MFJ's exclusive *Adaptive Tuning*™ -- tuning rate automatically becomes finer as you narrow bandwidth -- makes narrow filters super easy-to-use.

MFJ's exclusive *FilterTalk*™ -- sends precise filter settings in Morse code.

Automatic notch with variable aggressiveness, quieter 2½ Watt audio amplifier, speaker switch keeps phones always active.

Manual and auto notch can be used together. Noise reduction, automatic notch & custom filter saved in memory is selected.

Accurate easy-to-use input level indicator, improved manual notch in the CW mode, adjustable line level output, more Mark-Space frequencies and baud rates for data filters and automatic bypass during transmit for monitoring CW sidetone, voice/data by sensing the PTT line.

A push-button bypasses your filter -- lets you hear the entire unfiltered signal. 2½ Watt amplifier, volume control, input level control, speaker jack, Push-to-talk sense line, line level output. Measures a compact 9½x2½x6 inches.

Plugs between your Xcvr or receiver and external speaker or headphones. 12 VDC or 110 VAC w/**MFJ-1312D, $15.95.**

Cable Pack, MFJ-5184, $9.95.

Includes receiver cable, DC cable, 2 open-end TNC cables and power plug.

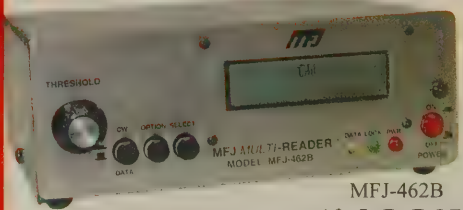
MFJ's SSB/CW Audio Filters

MFJ-752D, $119.95. All mode dual tunable filter lets you zero in and pull out your favorite stations and notch out interference at the same time. Two independently tunable filters let you peak, notch, low or high pass signals to eliminate heterodynes and interference -- even on the most crowded bands. Tune both filters from 300 to 3000 Hz. Vary bandwidth from 40 Hz to almost flat. Notch depth to 70 dB. Works with any rig. 2 watts for speaker. Inputs for 2 rigs. Switch selectable. Switchable noise limiter for impulse noise through clipper removes background noise. OFF bypasses filter. Use 9-18 VDC or 110VAC with MFJ-1312D, $15.95. 10x2x6 inches.

MFJ-751B, $89.95. Zero in SSB/CW with tunable peak/notch filters. Tune 300-3000 50 dB notch. 1¾x4¾x5 inches.

MFJ-722B, $99.95. The "Optimizer" switch selectable SSB/CW filter offers razor sharp filtering with switch-selectable bandwidths (80, 110, 50, 180 Hz centered on 750 Hz), steep-skirted SSB filtering. 300-3000 Hz tunable 70 dB notch filter. Plug into phone jack. Speaker. Built-in 2-Watt amp. Headphone jack. Use 9-18 VDC or 110 VAC with optional MFJ-1312D, $15.95.

Multireader™ Taps Into Secret Signals



MFJ-462B
$199.95
Ship Code B

Ever wonder what those mysterious chirps, whistles, and buzzing sounds are on the shortwave bands?

Much of it is RTTY, ASCII, CW and AMTOR (FEC) signals passing commercial, military, diplomatic, weather, aeronautical, maritime, amateur and other traffic.

Tap into these "secret" signals

Plug this self-contained MFJ *MultiReader*™ into your shortwave receiver's earphone jack. Then watch these mysterious signals turn into exciting text messages as they scroll across an easy-to-read LCD display. No computer, interface, special cables or other equipment is needed.

Eavesdrop on the latest breaking news as press agencies from all over the world relay them on RTTY -- it's like having a private wire service in your home. Copy RTTY weather stations from Antarctica, Mali, Congo and many others.

Listen to military traffic passing from Panama, Cyprus, Peru, etc. Catch diplomatic, research, commercial and maritime traffic. Listen to maritime users, diplomats and amateurs send and receive error free messages using various forms of TOR (Telex-Over-Radio).

Monitor Morse code communications from hams, military, commercial, aeronautical, diplomatic and maritime coastal stations from around the world.

There's plenty of exciting non-voice traffic on shortwave that'll keep you fascinated . . . traffic you can't read unless you have a decoder.

Printer monitors 24 hours a day

MFJ's exclusive *TelePrinterPort*™ lets you monitor any station 24 hours a day by printing their transmissions. Plug your Epson compatible printer into the MFJ-462B printer port and you're ready to print. **Save** several pages of text in 8 K of memory for later review or re-reading.

Consistently get solid copy from MFJ's high performance *PLL* (phaselock loop) *modem technology*. Digs out weak signals buried in noise and even tracks slightly drifting signals. Mark and space tones are copied to give you greatly improved decoding under adverse conditions.

Easy to use, tune and read

Just push a button to select modes and features from a menu. A precision tuning indicator makes tuning your receiver for best copy on all modes quick and easy.

The 2 line 16 character LCD display has contrast adjustment. One line comes in at speed of signal, second line is delayed so you catch every exciting word!

Copy most standard shifts and speeds in all modes. MFJ's *AutoTrak*™ automatic Morse Code speed tracking helps MFJ-462B to track and decode high speed CW.

MultiReader™ Accessories

Use 12 VDC or use 110 VAC with MFJ-1312D AC adapter, $15.95. MFJ-462B measures 6¼Wx2½Hx6¼D inches.

MFJ-5162, $7.95. *Receiver cable* connects MFJ *MultiReader*™ to your radio's external speaker (3.5mm jack).

MFJ-5412, $11.95. *Printer Cable* is 25-pin cable for Epson compatibles.

MFJ-5163, $10.95. Speaker "Y" cable.

MFJ-5300, $6.95. Three foot, 3.5 mm stereo extension cord with volume control. Can use for mono radio speaker output to set audio level to external devices. Has pocket clip for portable use.

MFJ Shortwave *Regenerative* Receiver Kit

MFJ-8100K
$79.95
Kit
Ship Code B

MFJ World Band
Shortwave Radio
Band
Regeneration
Volume
MODEL MFJ-8100
Power
Tune
PWR
On
Off
MFJ

Remember hunching over your regenerative receiver for hours with a pair of headphones pressing uncomfortably against your ears?

You could hear just about anything that fancy superhets could hear. Sure, you had to play around with the regeneration control just right and have a steady hand to tune but you could hear 'em.

Don't you wish you could relive some of this fun and excitement of your youth -- share some of it with your kids and grandkids? Well, you can -- with the MFJ-8100 World Band Shortwave Radio Kit.

Spend a fun evening with your child or grandchild and help him put this simple kit together. When the two of you finish, watch his glow of excitement as he tunes the world bands -- just like you did -- and remember for life. It might inspire a career in electronics.

This baby performs. It has an RF stage that really picks up the weak ones and it goes into regeneration smoothly without pops or dead spots. Stations all over the world will come in loud and clear with just a 10 foot wire antenna strung outside or across the room.

With a 10 foot wire antenna, you'll be amazed at what you can hear -- stations all over the world will come in loud and clear.

Listen to international shortwave broadcasts, hams on SSB and CW, WWV, RTTY, packet and much more. Covers all or part of 75/80, 49, 40, 30, 31, 20, 25, 22, 19, 17, 16, 15, and 13 Meters in five bands.

Range A covers: 3.51-4.31 MHz, Range B: 5.95-7.40 MHz, Range C: 9.56-12.05 MHz, Range D: 13.21-16.4 MHz, and Range E: 17.6-22 MHz.

Has vernier reduction drive, bandswitch, volume and RF gain controls, uses 9V battery and is built into a rugged aluminum cabinet.

Two earphone jacks let you and your child or grandchild listen together with your Walkman style earphones or plug-in speakers. Measures 7Wx6Hx2½D inches.

MFJ-8100K, $79.95. Shortwave regenerative receiver kit. You stuff the components, solder and assemble!

MFJ-8100W, $109.95. Shortwave Regenerative receiver, wired and tested at MFJ and *ready-to-operate!*

MFJ Shortwave Radio Communication Headphones

MFJ-392B is perfect for amateur radio and shortwave radio listening. Great for all modes -- SSB, FM, AM, data and CW.

Each earphone its own volume control.

Superb padded headband and *ear cushioned* design makes listening extremely comfortable.

You'll forget they're even on as you listen to stations all over the world!

High-performance driver unit reproduces enhanced communication sound. Signals never sounded so *crystal clear!*

Bring out speech fidelity you never knew existed. Has free ¼ inch phono adaptor.

Has gold plated plug and cord. Super lightweight earphones (8 ounces) come with 9 feet of cord for roaming around.

MFJ-392B handles 450 mW and has a frequency response of 20-20,000 Hz.

Impedance is 32 ohms, sensitivity is 102 dB/mW.

Works in stereo mode with 3.5 mm plug. Works mono with 1/4 inch adapter.

MFJ-392B
$24.95
Ship Code A

MFJ LW/MW/SW Preselector/Tuner

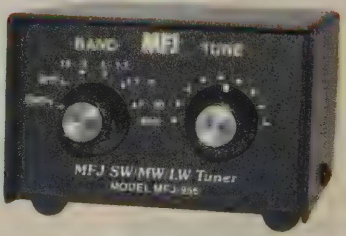
MFJ-956 boosts your favorite listening stations while rejecting images, intermod and phantom signals.

Greatly improves reception from 0.15 to 30 MHz, especially below 2 MHz.

Has Tuner Bypass and Ground Receiver positons.

All black aluminum cabinet is a super compact 2x3x4 inches.

Input and Output are SO-239 connectors.



MFJ-956
$69.95
Ship Code A

MFJ Computer Interface/Decoder

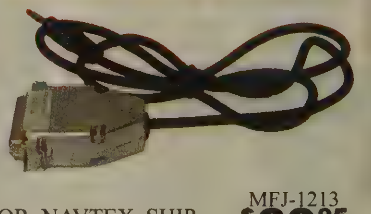
MFJ-1213, $59.95,

This MFJ Computer Interface Decoder includes *JVFAX* and *HamComm* software on a 3.5 inch disk.

The MFJ-1213 receives and decodes multimode digital data with your receiver or transceiver.

You can decode Color FAX/SSTV pictures, Baudot, ASCII, AMTOR, ARQ/FEC, SITOR, NAVTEX, SHIP, SYNOP and more.

This prewired cable comes ready for easy plug and play operation.



MFJ-1213
$69.95
Ship Code A

Indoor *Tuned* Active SWL Antenna Covers 0.3 to 40 MHz

MFJ invented the tunable active antenna! New technology uses cascode FET/bipolar transistor and a gigahertz bandwidth buffer

MFJ invented the tunable active antenna! Numerous copies have been made without success -- including most recent ones.

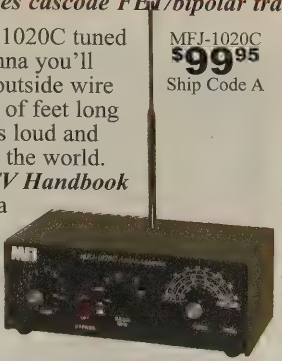
Why? Because MFJ has made continuous improvements where others have not. The MFJ-1020C has been completely redesigned with new technology.

New technology uses a cascode FET/bipolar transistor and a gigahertz bandwidth buffer.

It improves gain and selectivity, reduces noise and intermod, and is NOT prone to self-oscillations that can severely damage your receiver.

With the MFJ-1020C tuned indoor active antenna you'll rival reception of outside wire antennas hundreds of feet long and pick up signals loud and clear from all over the world.

World Radio TV Handbook says MFJ-1020 is a *"fine value . . . fair price . . . best offering to date . . . performs very well indeed."*



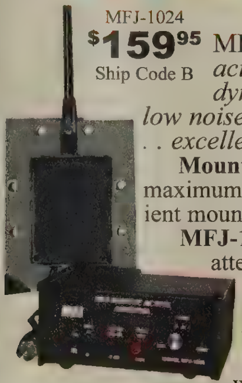
MFJ-1020C
$99.95
Ship Code A

MFJ's unique tuned circuitry minimizes intermod, improves selectivity and reduces noise outside the tuned band. You can also use it as a tuned preselector with an external antenna.

Covers 0.3 to 40 MHz including VLF, AM broadcast, all shortwave and all amateur radio bands.

Has Tune, Band, Gain, On-Off/Bypass controls and SO-239 coax connectors. Use 9 volt battery, or 12 VDC or 110 VAC with **MFJ-1312D, $15.95**. 6Wx2Hx5D inches. Includes telescoping whip.

54" Active Outdoor Antenna



MFJ-1024
$159.95
Ship Code B

World Radio TV Handbook says MFJ-1024 is a *"first rate, easy-to-operate active antenna . . . quiet . . . excellent dynamic range . . . good gain . . . very low noise factor . . . broad frequency coverage . . . excellent choice . . ."*

Mount it outdoors away from electrical noise for maximum signal and minimum noise. Has convenient mounting holes for easy installation.

MFJ-1024 covers 50 KHz to 30 MHz. 20 dB attenuator, gain control, ON LED.

Switch selects two receivers and auxiliary or active antenna. **Control** unit measures a compact 6Wx3Hx5D inches.

Remote unit has a 54-inch telescopic whip, 50 feet of coaxial line and PL-259 connector. Measures 3Wx2Hx4D inches. Use 12 VDC or 110 VAC with **MFJ-1312D, $15.95**.

Compact 0.3 to 200 MHz antenna

MFJ-1022
$69.95
Ship Code A

Your ham band only antenna does great on the ham bands . . . but this MFJ all band active antenna will help you hear strong signals from all over the world from 300 KHz to 200 MHz -- including low, medium, shortwave and VHF bands.

Enjoy shortwave newscasts, ship-to-shore, airline, commercial RTTY and others.

It also improves weak noisy scanner radio reception from high to low band VHF -- hear signals you couldn't hear before.

A J-310 FET handles strong signals and noiseless feedback circuit gives you excellent low noise reception. 4.5 GHZ MRF-901 transistor lets you receive weak signals well into VHF.

On/off switch, power on LED, SO-239 coax connector and detachable 20 inch telescoping antenna. 9 volt battery or 110 VAC with **MFJ-1312D, $15.95**. Measures 3Wx1¼Hx4D inches.

High Dynamic Range *Passive Preselector* Can't Overload

MFJ-1046
$119.95
Ship Code A

MFJ's new Passive Preselector has extremely high dynamic range! Improves performance of nearly any HF or shortwave receiver/transceiver. Vastly improves most expensive receivers. Especially helpful to broadband front-ends prone to overload.

Protects sensitive receivers from damage (including switching diodes, attenuator resistors) from very strong signals: multi-transmitter, multi-band ops -- contests, field-day, hams, CBers, TV/FM/AM stations.

Eliminates phantom signals by suppressing out-of-band signals causing intermod, blocking, cross modulation. Completely eliminates 2nd order intermod.

MFJ's unique Hi-Q series tunable circuit gives you superb performance.

The tunable series tuned circuit works into a very low impedance formed by broadband toroid transformers.

Has narrow bandwidth, excellent stopband attenuation, very low loss, constant bandwidth and gain over each band.

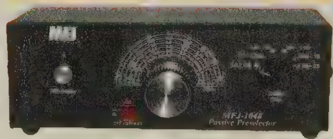
Excellent attenuation in adjacent bands.

The entire 1.6 to 33 MHz HF band is covered in five overlapping bands.

An air variable tuning capacitor, 1.8 to 1 tuning range and a vernier reduction drive gives you precision tuning.

Measures 7½x2½x3¼ inches.

Preselector with T/R Relay



MFJ-1048
$139.95
Ship Code A

Like MFJ-1046 but *adds* an RF sense transmit and receive switch with adjustable time delay to automatically bypass your MFJ-1048 when you transmit.

Also adds PTT line Transmit and Receive switching. MFJ-1048 connects between antenna and transceiver. Measures 7½x2½x3¼ inches.

Use 12 VDC or 110 VAC with optional adapter, **MFJ-1312D, $15.95.**

All-Band Transceiver Preselector

MFJ-1040C
$119.95
Ship Code A

Lets you copy weak, barely readable signals. Rejects out-of-band signals, images. 1.8 to 54 MHz. Get up to 20 dB gain. Also has *Gain control.* Uses a cascode FET/bipolar transistor for low noise, high gain with a 20 dB attenuator. You can connect 2 antennas and 2 receivers with SO-239 connectors. You can automatically bypass the MFJ-1040C when you are transmitting to 125 watts. Delay control. Has jack for push-to-talk. 6½Wx2½H x4D inches. Use 9-18 VDC or optional 110 VAC, 300 mA adaptor **MFJ-1312D, $15.95.**

Continued right . . .

All-Band Receiver Preselector

MFJ-1045C
$89.95
Ship Code A

MFJ-1045C, $89.95. Like MFJ-1040C, but does not have the attenuator, transceiver auto bypass, delay, or PTT. Compact 6Wx2¼Hx6¾D inches.

Receiver Antenna Tuner/Preamp

MFJ-959C
$129.95
Ship Code A

Don't miss rare DX due to signal power loss between your receiver and antenna. The MFJ-959C provides proper impedance matching to transfer maximum signal from antenna to receiver. Covers 1.6 to 30 MHz. 20 dB preamp with gain control boosts weak stations. 20 dB attenuator prevents overload. Select from 2 antennas and 2 receivers. Measures 6½Wx 2½H x4D in. Use 9-18 VDC or 110 VAC with optional adapter, **MFJ-1312D, $15.95.**

MFJ-890 DX Beacon Monitor

MFJ-890
$119.95
Ship Code A

Get up-to-the-minute worldwide DX band conditions in minutes on 14, 18, 21, 24, 28 MHz bands using the International Beacon Network of 18 transmitters around the world!

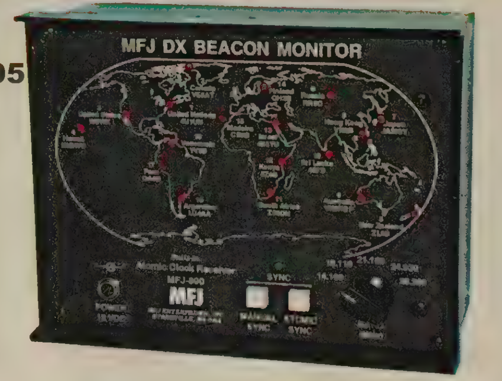
MFJ's DX Beacon Monitor lets you see which beacon you're hearing on your transceiver -- an LED lights on its world map to show you the beacon location and where to point your antenna.

It's fascinating to hear and watch each beacon location light up as they become active across the world. Great for DXers, contesters, ragchewers and SWLers.

The *International Beacon Network* provides a reliable source of signals for determining HF propagation 24 hours a day.

It consists of 18 beacons around the world. Each beacon transmits on 14.1, 18.11, 21.150, 24.93 and 28.2 MHz. The transmit sequence moves westward from New York across North America, Asia, Pacific to Africa, Europe, South America.

On each frequency, each beacon transmits for ten-seconds -- its call sign at 22 wpm CW and a one-second dash at 100 watts and three one-second dashes at 10, 1, and 0.1 watts.



When each beacon completes a transmission it goes silent on that band and switches to the next higher band.

For more information see Oct/Nov, 1994, Sept, 1997 *QST* and Jan 1999, Sept/Dec 2001, Jan 2002 *Practical Wireless* of U.K.

The more beacons you hear, the more open the band is to different parts of the world.

The more dashes you hear per beacon, the better the quality of propagation and the more robust the band is. If you hear the 100 milliwatt dashes from many beacons you know *the band is wide open!*

***In** just three minutes* you'll know how band conditions are worldwide.

You don't have to copy CW at 22 wpm to identify a beacon. As you *hear* a beacon, an LED instantly lights on a world map to show you its location. You can positively identify each beacon -- even if the signal is weak, fluttery or distorted.

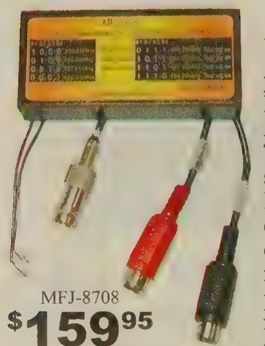
The *MFJ DX Beacon Monitor* has a *built-in WWVB atomic clock receiver* to provide ultra precise synchronization with the GPS-synchronized beacons. You also may manually sync the Monitor (the Monitor is not a receiver).

MFJ-890 is a self-contained standalone unit. 6$\frac{3}{4}$Wx5$\frac{1}{4}$Hx3D”. Use 12 VDC or 110 VAC w/optional MFJ-1312D, $15.95. No antenna/radio connection required.

MFJ-890UK, $119.95 (for England).

MFJ Micro ATV Transmitter

Transmits Live Pictures on Cable TV Channels



MFJ-8708
$159.95
Ship Code A

This tiny *MFJ Micro ATV Transmitter*™ lets you transmit a high quality Amateur Television video signal on 433.97 MHz (cable channel 58, 59, or 60). All you need to do is plug in an antenna and a video source -- your camcorder, camera, VCR or other video source.

With an antenna and a TV set (or down converter/ TV) tuned to cable channel 58, 59, or 60, you'll have a *complete ATV video station.*

The MFJ-8708 puts out a solid 50-100 mW signal, capable of transmitting up to 1.8 miles with a 3-element beam. By using a suitable UHF power amplifier and high-gain antenna, you can enjoy two way ATV communications over many, many miles with fellow ATV hams.

To transmit video simply connect video to the RCA phono connector and antenna to the BNC connector and connect a 9 volt battery or other 9 VDC source.

You can use any standard NTSC or PAL composite video (1V pk-pk) source.

The MFJ *Micro ATV Transmitter*™ can only be operated by a Technician class or higher licensed Radio Amateur. All transmissions must be directed to at least one other licensed Radio Amateur.

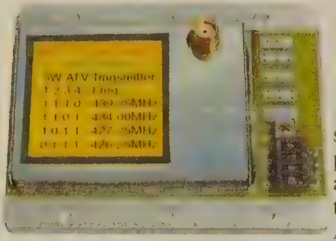
MFJ-8708, 4 channel, cable channels 58, 59, 60 and test channel. Weight only 1$\frac{1}{2}$ ounces, less battery. Has audio and video inputs.

MFJ-8704
$119.95
Ship Code A

MFJ-8704, cable channel 59 video only. Weighs only one ounce, less battery (battery, quarter not included).

MFJ 4.5 Watts ATV Transmitter

Amazingly compact 2.35Wx2.8Dx.75H inches, but super powerful!



MFJ-8709
$199.95
Ship Code A

This super high performance amateur radio ATV transmitter module is capable of putting out a *whopping 4.5 Watts!* The RF power output is controlled by an analog potentiometer from near zero output to 4.5 Watts maximum. Current draw varies with power level selected.

Frequency control is provided by means of a digital integer-N, phase locked loop. Dual PLLs provide a frequency locked video carrier and an audio sub-carrier. Transmit frequency is selected via a four position dip switch. Four standard US ATV frequencies 426.25, 427.25, 434.00, and 439.25 MHz on channels 58, 59 and 60.

Video modulation is accomplished by a 12-bit digitally controlled DAC-digital to analog controller. A specially embedded software algorithm controls the modulation depth and pre-distortion level to deliver an ultra-clean video signal to the final RF amp.

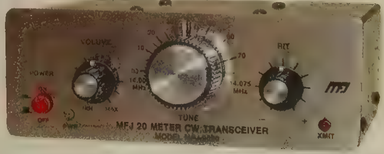
High power transmitting over 0.5 Watt output requires an external heatsink. When provided with an external heatsink, MFJ-8709 can be used for extended key down operation. Reverse polarity protected.

RF power output:	4.5W Max, 50 Ohm
Audio Subcarrier:	4.5 MHz
Spurious Outputs:	Better than -40dBc
Phase Noise:	-75 dBc/Hz @ 500 KHz
DC power in:	12-13.5 V Max, (+/-100mV)
Current Draw:	2.2 Amps @max output
Frequency control:	XTAL ref. to 4 MHz
Frequency stability:	+/-20 PPM
Video In:	Composite NTSC 1V P-P
Audio In:	Line level 200-250 mV RMS
Operating Temp:	-20° to +85° Celsius
Size:	2.35Wx2.8Dx.75H inches

MFJ *5-watt* CW Transceivers

New improved ultra-hot receiver...enjoy DXing or ragchewing wherever you go...brush up on CW and upgrade...no-compromise performance...at a terrific price!

MFJ-9040/9030/9020
MFJ-9017/9015
$\$209^{95}$
Each. Choose band.
Ship Code B



Easy Operation: The most user-friendly radio you'll ever own. Sets up in seconds -- no microprocessor mumbo jumbo.

Great Sensitivity: New *hotter-than-ever* superhet receiver brings weakest signals in at full volume (super-quiet FET post amp stage in the IF filter makes this the best CW receiver going).

Excellent Selectivity: Tight CW bandwidth crystal ladder filter fights unwanted QRM and noise to the maximum.

Smooth and Stable VFO: Wide-spaced reduction drive VFO capacitor glides slowly across the easy-to-read dial.

True RIT: RIT control has center-detent -- makes listening or calling off-frequency a snap!

Easy on your Ears: Smooth AGC tracks only the signals you want to hear -- it never locks onto strong signals outside the audio bandpass. MFJ's *InstantRecovery AGC*™ snaps the receiver back at full gain after transmitting.

Built-in speaker: High efficiency 3" speaker driven by 100 mW of audio gives great volume.

Rugged Transmitter: Motorola power amplifier transistor delivers full QRP output, tolerates opens and accidental shorts without damage.

Sinewave Sidetone: Pure 700 Hz CW sidetone makes sending as much fun as receiving!

Semi-QSK: Set adjustable hold transmit/receive switching to suit your normal sending speed or set it for full QSK during contests.

Easy to Power: It uses little power -- only 50 mA average on receive and 1.2 amp peak on transmit. Perfect for battery operation in remote locations!

Rugged Construction: MFJ CW radios are built on G-10 double-sided plate-through PC boards in our plant. Rugged all-metal cabinet with silkscreened brushed stainless steel front panel and black metal cover.

Frequency Coverage: *Choose your favorite band!* 40 & 15 Meter models cover all your favorite band segments --makes a perfect *"first radio"* for new upgrading CW Loving hams.

MFJ-9040 covers 7.000-7.150 MHz; **MFJ-9030** covers 10.100-10.150 MHz; **MFJ-9020** covers 14.000-14.075 MHz; **MFJ-9017** covers 18.068-18.110 MHz; **MFJ-9015** covers 21.000-21.200 MHz.

Integrated CW Station

Radio, tuner, power pack fasten together to form a tiny 6X6.5X8.5-in. integrated CW station.

$384.80 buys a complete CW station. Includes CW transceiver, $209.95; MFJ-971 tuner, $119.95; MFJ-4114 power pack, $79.95; portable antenna, $39.95 . . . . order: MFJ-9140B, 40M; MFJ-9130B, 30M; MFJ-9120B, 20M; MFJ-9117B, 17M; MFJ-9115B, 15M.

$\$449^{80}$ if purchased separately.

MFJ-27, $6.95, carry handle. *Save $!*

Hip-pocket size *QRP Cub* CW transceiver

MFJ cub
TUNE

MFJ-93XXK
$\$99^{95}$
Kit, Ship Code A

MFJ *QRP-Cub*™ Transceivers use surface mount technology to achieve big performance in a pocket-size.

The kit version has all SMT parts mounted and soldered. You just insert and solder the "through-hole" parts such as the connectors, inductors and trimmer caps.

Designed by QRP-ARCI hall-of-famer K1BQT for real world low-power operating conditions. Buy all or choose from 80, 40, 30, 20, 17, or 15 Meters. Specify band in "XX" area of model number.

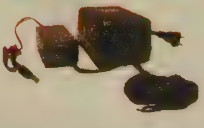
Hot receiver with 0.2 uV sensitivity, low noise, sharp passband crystal filter, Differential mode AGC, rock steady, over 80 dB signal range, robust AF output, 2 Watts thru 20 Meters, 1 Watt 15/17 Meters.

Power adjustable to zero, full QSK for smooth break-in, natural sidetone, shaped keying, custom TX offset, receiver passband center, low power drain. Tiny 3¾Wx1½Hx4½D inches. Wired unit covered by MFJ's *No Matter What*™ warranty.

MFJ-93XXW, $\$149^{95}$. Wired & tested cub. Specify band in "XX" portion of model #.

Portable and QRP Power Supplies and Accessories

MFJ-4110, $59.95. Portable AC power supply. Connect to MFJ radios. LED indicates when power is applied. Output is approximately 13.8 VDC at 1.2 amps.



MFJ-416, $49.95. CW option kit for your MFJ-9406 six meter and your MFJ-9402 two meter adventure transceivers.

MFJ-726, $49.95. Narrow audio filter built for MFJ CW transceivers.

MFJ-4114, $79.95. AC Power supply/Battery Pack uses Ni-Cd D cells or alkaline D cells (not included). Matches MFJ radios. Output is 13.8 VDC at 1.2 amps. Voltage regulated. Ni-Cd charge circuit.

MFJ-412, $49.95. Curtis Chip Iambic Keyer Module for your MFJ 90 Series Transceivers. Use your MFJ paddles with the MFJ-412 and your transceiver for *complete CW fun!*

Great SSB/CW Accessories for your 90 Series MFJ Transceivers

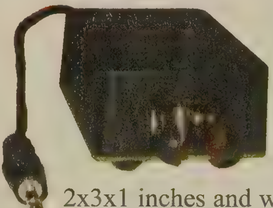
Now with 6 Meters!

MFJ-902B, $109.95. Tiny Travel Tuner, 4½x2¼x3 inches, fits in the palm of your hand! Handles a full 150 Watts, covers 80-6 Meters, has tuner bypass switch, tunes nearly anything! Perfect for backpacking, traveling, camping, etc. Great for rigs like IC-706MKIIG, Yaesu FT-100D, Kenwood TS-50. *See page 10!*

MFJ PORTABLE TUNER
TRANSMITTER
INDUCTANCE
ANTENNA
MODEL MFJ-971

MFJ-971, $119.95. 200 Watt PEP Antenna Tuner also has 6 Watt range setting for QRP. Covers 1.8-30 MHz. 4:1 Toroid Balun is built in for balanced lines. Stackable with your MFJ-90 Series Transceivers. *See Page 9!*

MFJ-561, $24.95. Miniature lightweight iambic paddle is just 1¾Wx1¾D ¾H inches and weighs just 2½ ounces -- tiny enough to fit in an Altoids(R) tin (cord and all!) -- great for traveling with QRP or "big" rigs!



MFJ-402, $69.95. Ham radio's tiniest electronic keyer with built-in iambic paddle! It's a *nano-size* 2x3x1 inches and weighs just 3½ ounces! Speed adjusts 5-65 WPM, weight 25-75%, has Iambic mode A or B, normal or "bug" mode and reverse.

Folded Dipole Portable Antennas

Single band, *lightweight,* folded dipoles are perfect for MFJ QRP rigs. Low SWR, direct coax feed, 200 Watts.

$\$39^{95}$ **each!**

Perfect for MFJ Rigs! **MFJ-1774B** (40M); **MFJ-1773B** (30M); **MFJ-1772B** (20M); **MFJ-1771B** (17M); **MFJ-1770B** (15M); **MFJ-1770C** (10M); **MFJ-1776B** (6M).

HF *SSB Travel Radios*™ are Feature-Packed

...the most powerful 12 watt radios you'll ever own ... hot receiver ... potent speech processing ... rugged transmitter ... proven on-air design ... real analog S-meter ... powerful audio

Turn on your new MFJ SSB transceiver and you'll marvel at how well it performs.

Weak stations roll in with surprising clarity, faithfully reproduced by a single conversion receiver. On transmit, MFJ's exclusive *ConstantCurrent*™ speech processor cuts thru noise and QRM like a far more complex radio.

Take this performance along on your next vacation or business trip -- the MFJ transceiver, microphone, power supply, and antenna can easily fit into your brief case or carry-on bag.

Simple operation: No microprocessor mumbo-jumbo -- on the air in minutes!

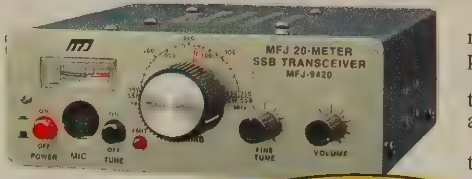
Great sensitivity: Features a quiet double balanced mixer front-end, single conversion clarity and plenty of gain. If a signal is there, you'll get it loud & clear!

Analog S-Meter: A real calibrated S-meter -- not a useless bargraph -- that makes adjusting an antenna tuner or finding the best beam heading clear-cut.

Excellent Selectivity: 8 poles of tight IF filtering cuts adjacent chatter and focuses transmitter power where needed.

Smooth VFO: No annoying synthesizer jump or obscure keypad commands to deal with. Effortless tuning, custom reduction-drive ball-bearing capacitor.

Powerful audio: Big audio -- even in noisy locations from a special Signetics audio chip and rugged 3 inch speaker. One Watt audio output at 10% THD.



New! 15,17M Models

MFJ-9415/MFJ-9417
MFJ-9420
MFJ-9440/MFJ-9475

$\$259^{95}$

$269.95 with mic
Ship Code B

Low Current Requirements: You'll never have to lug around a heavy power supply to run this radio.

Rugged Transmitter: Bullet-proof output transistor runs cool, easily tolerates 3:1 VSWR and feedline shorts or opens.

Built to last: Conservative design, plate-through PC board, quality components, handsome silkscreened front panel and tough metal case ensure years of dependable service.

New! **MFJ-9415** covers 21.200-21.400 MHz.
New! **MFJ-9417** covers 18.08-18.17 MHz.
MFJ-9420 covers 14.150-14.350 MHz.
MFJ-9440 covers 7.150-7.300 MHz.
MFJ-9475 covers 3.750-4.000 MHz.

Draws 50-100 mA on receive and 1.2 amps peak on transmit at 13.8 VDC. $2^{1}/_{2}$x$6^{1}/_{2}$x6 inches.

MFJ-415B, $49.95. CW module for your MFJ-9420 and MFJ-9440, a must for DXers. Provides semi-QSK break-in and sidetone. Not compatible with MFJ-9415/9417/9475 models.

MFJ SSB *Adventure* Radios

MFJ 2-METER SSB TRANSCEIVER MFJ-9402
ON
OFF
POWER
MIC
XMIT
KEY
TUNING
FINE TUNE
VOLUME
144 MHz

. . . take on mountain tops, down cool streams, overseas, on your bicycle trip, etc. . . .

MFJ-9402
$\$309^{95}$
($319.95 with MFJ-290 mic)
Ship Code B

New! 12M Model

MFJ-9406/9410/9412
$\$279^{95}$
($289.95 with MFJ-290 mic)
Ship Code B

Choose from 2/6/10/12 Meters!

MFJ-9406 for 6 Meters -- the magic band -- can economically open to you the exciting propagation at 50 MHz, not to mention local ragchews.

. . . And you can take this little set anywhere . . . on top of mountains, down cool streams, overseas, on your bicycle trip, campgrounds, etc.

Your little MFJ Adventure Radio can combine with your other outdoors hobby for an even more enjoyable experience!

You get full coverage of 50.0 to 50.3 MHz with power output of 10 Watts PEP.

MFJ-9402, 2 Meters operates SSB and (optional) CW with 7 Watts output, 144.0-144.3 MHz.

MFJ-9410, 10 Meters packs 20 Watts SSB PEP output. You'll be amazed at the clarity of its receiver. Covers 28.3-28.6 MHz.

MFJ-9412, *New Adventure Radio* for **12 Meters.** 20 Watts SSB and CW PEP output and covers 24.890-24.990 MHz.

Adventure radios are easy to operate: just turn on and go!

They all sport MFJ's exclusive *ConstantCurrent*™ syllabic speech processing for an added 4 to 6 dB of punch.

All four *Adventure radios* feature single-conversion superhet receivers wth a low-noise front end and double-balanced mixer to fight intermod and dig deep, and a 2.3 kHz crystal ladder filter.

All *Adventure* radios include a built-in low pass filter to help avoid TVI.

You also get real analog S-meters that double as speech processing level monitors, analog tuning with no unexpected rate shifts or stair-stepping, powerful one-half watt of audio from their $3^{1}/_{2}$ inch top-mount speakers, and a solid-state FET switch to key an external amplifier.

They're energy efficient, operating from a 2 amp AC supply (3A for the model 9410) or from a 12 volt battery.

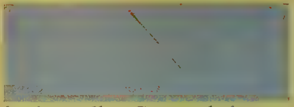
MFJ-416, $49.95. Optional CW module for *Adventure* rigs.

Adventure Radios are built-to-last through conservative design, premium quality, plate-through PC boards, quality components, handsome silkscreened aluminum faceplate and tough cabinets.

Fit an Adventure Radio just about anywhere: each is just 2.5X6.5X6 inches.

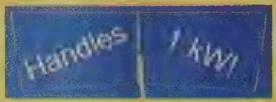
Special offer -- add an **MFJ-290** microphone for just $10 more.

MFJ Adventure Accessories



MFJ-1762, $99.95. 3-element 6 Meter yagi quadruples your effective radiated power over a half-wave dipole. 6 foot boom, 2 lbs. Can use TV rotator and mast. Handles 300 Watts PEP SSB. Mounts vertically or horizontally. Current balun decouples feedline. Great front-to-back ratio.

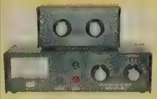
MFJ-1756, $99.95. Omni-directional low-angle vertical radiator lets you work plenty of DX in all directions even with low power. *GroundIsolated*™ radial system eliminates common mode current paths. Reduces undesirable feedline/supporting structure radiation. 55-inch. strong aluminum radiator.



MFJ-1896, $69.95. 6-Meter Moxon *antenna for limited space* features low SWR and a *broad cardioid pattern* with 5.5-dBi forward gain, high front-to-back ratio. Element span is a compact 7 feet on a 34 inch boom with a turning radius of under 4 feet. It's winter-storm tough but extremely lightweight, under 5 lbs. Handles 1 kW. Feedpoint is an SO-239 pigtail. It's the perfect choice for getting on the *"magic" band* as the sun spot count rises and legendary band openings return. Also, it's your best choice to take on those exciting mountain-topping and *rover* adventures!

MFJ-1736, $29.95. Hang this 6 Meter J-pole in the clear. Omni-directional full size 1/2 wave antenna with low angle radiation beats 1/4-waves.

MFJ-1776B, $39.95. Low SWR 6-Meter folded dipole. **MFJ-1770B, $39.95.** (10 Meters).



MFJ-906, $99.95. 6 Meter antenna tuner with lighted cross-needle meter (with **MFJ-1312D**, $15.95). 100 Watts FM, 200 Watts SSB PEP. **MFJ-903, $69.95,** Same as MFJ-906, less meter (See Page 6).

Mirage A-1015-G 150 watt output 6-meter amplifier with built-in GaAs FET receiver pre-amp. $389. See page 134 for full description.

MFJ -290 dynamic handheld mic for all MFJ SSB Adventure Radios™, **$39.95** when ordered separately.

MFJ-4110 Portable AC Power Supply, $59.95, fits in your pocket and is a perfect companion for your *radio-on-the go.* 13.8 VDC output at 1.2 Amps.

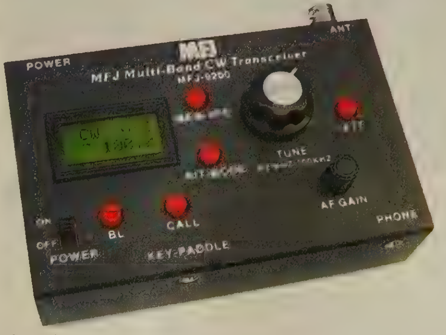
MFJ-4114 Rechargable AC Power Supply, $79.95, with battery pack uses Ni-Cad D cells or alkaline D cells (not included). Switch-selectable AC or batteries. Output 13.8VDC, 1.2A. Page 31.

6-Band QRPocket™ CW Transceiver

New! **Choose MFJ-9296 *QRPocket*™ *Transceiver* with all band modules for a super low $229⁹⁵! Operate 80/40/30/20/17/15 Meters!** ***No-compromise receiver performance . . . Solid QRP+ 5Watts transmit power on every band . . . QSK T/R Switching . . . DDS Frequency Control . . . Precise 100 Hz readout . . . 8 Memory channels per band . . . Selectable IF bandwidth for monitoring SSB/CW, more!***

MFJ-92XX
$199⁹⁵
Includes one band module of your choice.

MFJ-9296
$229⁹⁵
Includes all bands
Ship Code A



MFJ's pocket QRP transceiver is a bold new addition to MFJ's legendary QRP line, delivering unmatched six-band CW performance in a tiny pocket-sized package.

QRP radios have always been small in size, but thanks to direct-digital synthesis and microprocessor technology, the MFJ *QRPocket*™ represents a quantum leap over traditional designs with an unprecedented number of features for a very affordable price.

Covers 80 through 15 Meters using computer-modeled plug-in filter modules that yield no-compromise receiver performance and solid QRP+ transmit power (5 Watts plus) on every band.

There's also built-in iambic keying with a manual-key sensor, a programmable CQ message, and seamless QSK T/R switching. DDS frequency control delivers rock-solid stability, precise 100-Hz readout, and eight memory channels per band. Plus, you get a choice of three main-dial tuning rates and RIT with 10-Hz tuning resolution.

Other features include selectable IF-bandwidth for monitoring SSB/CW, a 20-dB front-end attenuator for overload protection, and switched backlight for LCD display. There's also plenty of receiver overlap for monitoring international shortwave.

MFJ's *QRPocket*™ rig runs on any power source between 8-15 VDC and draws a miserly 40 mA on receive with the display backlight turned off -- perfect for prolonged off-the-grid adventures. Best of all, the *QRPocket*™ Transceiver is the smallest and lightest backpack radio currently available.

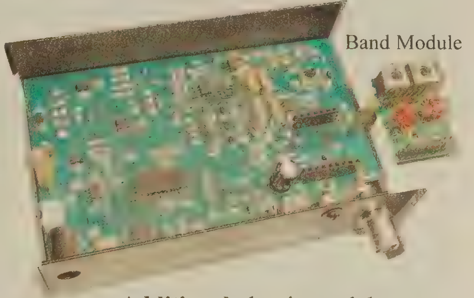
Order ***MFJ-9296, $229.95*** and get all 6 bands! Includes rig and all band modules.

MFJ-92XX, $199.95 comes with one band module of your choice and other bands are available at just **$29.95** each. Choose 80/40/30/20/17/15 Meters.

Transceiver operation is easy-to-master and clearly explained in a manual written by QRP Hall of Famer, Rick Littlefield, K1BQT.

We all know working rare DX is exciting, but being rare DX is truly indescribable!

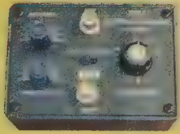
Given the QR*Pocket* CW Transceiver's diminutive size, features, wide coverage, and solid output, all of the ingredients are here to turn your next vacation, single person DXpedition or business trip into an adventure to remember!


Band Module

Additional plug-in modules are available for 80, 40, 30, 20, 17, 15 M. BM15/BM17/ BM20/BM30/ BM40/BM80, **$29⁹⁵ Each**

MFJ *QRPocket* ™ CW Transceiver Accessories

QRPocket ™Antenna Tuner

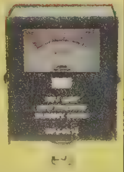


MFJ-9201, $49.95. Covers 80-10 Meters. Handles 25 Watts. Perfect for your *QRPocket*™ rig! Custom 12-position inductor switch, tune/bypass switch, antenna, transmitter capacitors, BNC feedpoints for antenna/transmitter. Tiny 4Wx$2^5/_8$Hx$1^1/_2$D" so it and your rig and antennas easily fit into a backpack or briefcase to take with you on your field day, DXpedition, vacation or business trip.

QRPocket ™SWR/Wattmeter

MFJ-9213, $39.95. Read forward and reflected power in 3 ranges: 5, 30, 100 Watts on a calibrated meter scale -- *Plus* read SWR and relative power at any level 0-5 Watts. *Bruene-style* bridge circuit detects both RF current and RF voltage to ensure uniform accuracy across a wide range of load impedances, frequencies and power levels. 1.8-50 MHz, BNC in/out. $4^1/_2$Wx$2^1/_4$Hx$2^3/_4$D inches.

QRP WattMeter/Dummy load



MFJ-9214, $29.95. Check your *true* QRP output power with this sensitive MFJ QRP Watt-meter. Has a *built-in* 50 Ohm dry load for testing your rig. Gives reading to 5 Watts full scale from 1.8 to 150 MHz. Has BNC male that fits directly to your BNC radio input. Compact 2Wx$2^1/_4$H x$1^1/_2$D inches. Fits in your pants pocket -- don't leave home without it! **MFJ-7737, $5.95.** BNC female to PL-259.

Pocket ™4:1 Balun

MFJ-9211, $19.95. When using a *balanced line* antenna, don't forget your 4:1 current balun. It has five way binding posts for your balanced line connection and a BNC output to your RIG. *Tiny* 2Wx3Hx1D in.

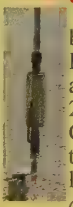
Pocket ™Ground

MFJ-9231, $59.95. Place your rig near *actual earth ground* potential *no matter where* you are operating. Electrically places a far away RF ground at the rig. Hook rig ground, adjust counterpoise, tune for max current and operate safely 1.8-30 MHz.

BigEAR ™ Dipole

MFJ-2289, $179.95. *8-band* (7.0-55.0 MHz) portable dipole, 34' of radiating power! Robust 45-degree center block, heavy-duty components and our unique *Hi-Q matching system* gives you a *"pair of ears"* that digs out the weak ones.

BigStick™Vertical



MFJ-2286, $99.95. Eight bands, 7.0-55.0 MHz. 18' long fully extended, but disassembles and collapses to 28" in seconds! 8.5' whip. Get true backpack portability -- lightweight, just over 2 lbs. Includes pipe mount -- *quickly and easily* mounts to 1/4 or 1/2" pipe or mast.

See Page 76 for more info on MFJ-2289/2286

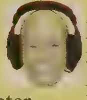
QRPocket ™Power

MFJ-4103, $49.95. Operate with your feet up. Miniature switching power supply delivers up to 40 Watts (13.8 VDC at 2.89A). $2^5/_8$Wx$1^3/_8$Hx$4^1/_8$D".

Mini Iambic Paddle

MFJ-561, $24.95. Full-size feel for smooth, easy CW. Resilient phosphorous bronze, steel base, rubber feet. 3 ft. cord, 3.5 mm plug.

Comm. Headphones



MFJ-392B, $24.95. Lightweight stereo headphones give cushioned comfort and clear sound. Free 1/4 inch phono adapter, gold plated plug and cord.

Walkabout ™Antennas

MFJ-1899T, $79.95. 80-6 Meters, *"wander-lead"* loading coil, collapsible 52" whip. *Mono band coverage:* **MFJ-1880T/1840T/1830T/1817T/1815T, $24.95 to $29.95.**

MFJ *Sound Card-to-Rig* Interface

MFJ-1279/M/T
$\$139^{95}$
Ship Code B

Deluxe Sound Card Radio Interface
MFJ
MICROPHONE
FOOTSWITCH
RADIO
COMPUTER

Plug this sound card interface between your rig and computer and operate all digital modes.

Everything you need is included -- software, audio cables, RS-232 serial cable and AC power supply. More software programs available (below right).

Provides fully automatic operation with audio and push-to-talk control. Matches sound card audio, eliminates ground loops and provides mic override.

Models for all radios with 8-pin round (MFJ-1275/1279), 8-pin modular (MFJ-1275M/1279M) or 4-pin round (MFJ-1275T/1279T) microphone plugs.

Operate PSK-31, packet, APRS, Amtor, RTTY, SSTV, CW, high-speed CW Meteor Scatter and others. Use as Contest Voice and CW Memory Keyer.

Select the ON digital mode -- all connections are made between your rig and computer for digital operation. Select BYPASS -- rig and computer for normal operation.

Audio isolation transformers and relays eliminate ground loops, audio hum, noise and distortion. Extensive RF suppression, line isolation eliminates RF problems.

Transmit mic audio at any time by pressing PTT to override digital modes -- great for SSTV and Contest Voice Keyer.

Serial port -- lets computer control radio to override/interrupt digital transmissions. VOX Control -- lets you use VOX control when not using computer serial port control. Level Controls are for transmitter drive and for receiver-to-sound card drive levels.

A front panel switch selects left, right, or both sound card audio output channels to accommodate various programs. Selectable positive logic or negative logic COR input -- provides *EchoLink* interface. Off-the-air recording -- for replaying or for use with spectrum analyzer programs.

Monitor on/off switch lets you have a normal QSO and receive SSTV pictures at the same time in the *"monitor on"* position. This is great for modes like SSTV and Voice Keyer operation that may require listening to receive audio during operation.

Internal jumpers set internally for any model radio -- no soldering required.

The Original MFJ-1275 Soundcard Interface

MFJ
Sound Card Radio Interface

Everything you need to operate digital modes with your computer soundcard. Cables, Software/shareware and power supply are included.

MFJ-1275/M/T
$\$109^{95}$
Ship Code B

Basic Digital Interface

Soundcard, radio, speaker, RS-232 jacks. No external power needed. No mic jack/mic switch. MFJ-1273B, 8 pin round, MFJ-1273BM, 8-pin modular, and MFJ-1273BT for 4-pin round mic.

MFJ-1273B
$\$59^{95}$

MFJ-1279 Super Soundcard Interface adds the following unique features:

- **Auxiliary Input Jack:** Switch soundcard from MFJ-1279 to use soundcard for something else. No more plug and unplug!
- **Direct CW/FSK Keying Jack:** Allows direct CW/FSK keying operation.
- **Headphone Jack:** Use stereo headphones -- also turns off external speaker.
- **Footswitch jack:** Use footswitch (not included) for PTT when not using VOX.

MFJ-5429, $24.95. Allows MFJ soundcard interface to be used with USB port computer. DB9M RS232 to USB 1.1 with driver. Supports98/98SE/ME/2000/XP.

DSP Sound Card Programs

MFJ-1298, $169.95. *RadioCom5* -- Has all features of RadioCom4 ***plus*** DSP audio filter and spectrum analyzer, dual scope display, sound recorder, time, frequency management and analyzer, 3D scanner, satellite tracking, more! Not compatible with Vista.

MFJ-1299, $199.95. RadioCom6 -- All features of RadioCom4/5 ***plus*** remote control of 2 radios, up to 6 decoders per radio, *only* one sound card needed, level converter included. Requires Intel Pentium/Celeron with at least 1 GHZ, 256 MB RAM, a bi-directional sound card with line-in port, a spare Com port, and either Windows 2000/XP/Vista or higher installed with graphics card, 1280x1024 16-bit color resolution.

MFJ-1272 switches your TNC or Microphone by simply pushing a button

8-Pin Modular (RJ-45) Mic Plug
8-Pin Round Microphone Plug
MFJ MICROPHONE/TNC SWITCH

MFJ-1272B/M
$\$49^{95}$
Ship code A

***Switch** between your TNC Multimode Packet Controller or Microphone by simply pushing a button!*

You won't have to unplug your mic and plug in your TNC every time you want to work digital modes.

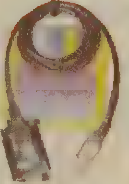
Just plug these pre-wired cables into your rig's mic connector and into your TNC and you are ready to go -- no more hunting for hard-to-find connectors and wiring up complicated cables -- no more plugging/unplugging to work voice/packet!

Works with HF, VHF and UHF rigs with 8 pin round or 8 pin modular mic connectors -- Kenwood, Icom, Yaesu, Alinco, Radio Shack, others. For radios with the 8-pin round mic plugs, select "B" models. For radios with the 8-pin modular (RJ-45 modular, phone type plug), select "M" models.

Plug-in jumpers let you quickly set-up for virtually any radio. Factory set for Kenwood and Alinco. Includes easy-to-follow instructions. Has audio-in and speaker jacks. MFJ-1272 series measures a tiny $3\frac{1}{4}$x$1\frac{1}{4}$x4 in.

TNC TYPE / Radio Mic Conn	All MFJ TNCs/PK900 PK12/PK96/PacComm Other TNC2 compatibles	KAM VHF KAM HF / KPC3 KP9612	AEA PK-232
8 pin round mic plug	**MFJ-1272B**	**MFJ-1272BYV** **MFJ-1272BYH**	**MFJ-1272BX**
8 pin modular mic plug	**MFJ-1272M**	**MFJ-1272MYV** **MFJ-1272MYH**	**MFJ-1272MX**

MFJ RS232 to USB Adapter and others



MFJ-5429, $24.95. DB9 Male RS-232 Serial Port to USB 1.1 port adapter cable. Includes a driver for Win98/ME/2000/XP/Vista on a 3.5 inch floppy disk. Use this to connect serial port devies to a computer with no serial ports.

MFJ-5427, $24.95. Use computer USB port to print on a parallel printer. 6 ft. cable, USB/DB-25 Female. Driver incl.

MFJ-5428, $24.95. Same as MFJ-5427, but has USB and Centronics 36 Male. Driver included.

Six Foot USB Cables

MFJ-5430, $3.95. USB A Male to USB B Male, 6 foot cable, beige color.

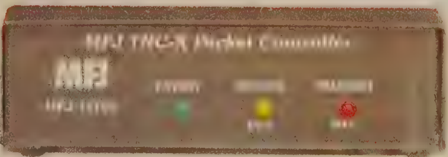
USB Charge Cable

MFJ-5431, $4.95, Micro USB to USB Charge Cable.

Soundcard Extension

MFJ-5420, $14.95. Five foot cord plugs into sound card on the back of your computer. Provides at your fingertips, jacks for speaker, microphone and headphone and gives you speaker volume control, speaker/headset switch and microphone on/off switch. 3Wx2Hx$\frac{3}{4}$D inches.

TNC-X -- *An Inexpensive TNC for VHF Packet and APRS!*



MFJ-1270X
$\$129^{95}$
Ship Code B

TNC-X is a low-cost, low power TNC currently deployed in thousands of locations all over the world. Just connect your FM radio and your computer and the world of digital packet radio is yours to enjoy. TNC-X is a self-contained TNC, not a computer sound card interface that ties up your computer's resources.

TNC-X is a KISS mode TNC. It works with every packet radio software program that supports KISS mode. These days, that makes it compatible with almost everything in packet radio. And unlike some other TNCs, you never have to worry about it "accidentally" falling out of KISS mode. KISS mode makes it extremely simple to use. There are no complicated menus of parameters to adjust. You just plug it in and it works!

TNC-X is a genuine USB TNC, not a TNC with an outboard serial to USB converter added to it. As a result, when you plug it into a USB port on your computer, it derives its power from the USB port. You need not provide a separate power connection. For those who want to use it with older computers, it also supports a separate conventional serial port. You can even switch back and forth between USB and serial if you like. TNC-Xs USB port works with all major computer operating systems including Windows (all versions after 95, including 64-bit), Mac OS X (as well as Mac OS 8 and 9), and Linux.

TNC-X beats the competition in decoding packets from poorly adjusted transmitters. You get a built-in active audio filter in front of the TNC's modem to clean up analog signals before they are digitized, substantially improving demodulation performance. TNC-X also supports true software DCD. You can leave the squelch of the radio connected to TNC-X open for very fast transmit/receive turnaround times.

TNC-X is a natural for emergency communications and is being used in this application across the country and around the world. It is fully compatible with Winlink 2000 both on the server side and on the client side. Just specify KISS mode in your PacLink MP or RMS software and you're ready to roll! . . . or better yet . . .

TNC-X is perfect for APRS™. It is fully supported by virtually every APRS™ mapping program in use today. It provides a truly low cost mechanism for mapping the locations of other amateur radio stations.

TNC-X contains an expansion header that allows you to add daughter boards to provide entirely new capabilities. Add an X-Digi board and convert TNC-X into a modern, remotely configurable digipeter (see below). With TNC-X, you only buy the capabilities you need. You don't to pay for features that you will never use. Measures 5$\frac{1}{8}$Wx1$\frac{1}{2}$H3$\frac{1}{4}$D inches.

Plug-and-play . . . it's compatible with all of MFJ's TNC to radio cables (*below*), as well as MFJ's A to B USB cable.

MFJ-1270DG, $29.95.

X-Digi is an inexpensive board that plugs into TNC-X's expansion header and makes it into a stand-alone full-featured digipeter. It supports the new WIDEn-N paradigm for APRS™ digi-peters, or can act as a general purpose digipeter.

When operating as an APRS™ digitpeter, X-Digi has the capability to trap and eliminate duplicate position reports, substantially reducing congestion on APRS™ frequencies. It has the capability of sending up to four different beacons, each with its own text, and each at its own transmission interval.

Together TNC-X and X-Digi consume very little power (less than 25 mA). In a pinch, you can power TNC-X and X-Digi all day long on a 9-Volt battery

X-Digi is remotely configurable over the air. You can change virtually every digipeter parameter without ever having to revisit your remote site. Password protection ensures that no one else will tamper with your digi's settings.

Your X-Digi will never be obsolete. New firmware will be made available for free by the internet. No special equipment is required to flash the updated code into your X-Digi.

Pre-Wired *Radio-to-TNC* Cables

TNC to Radio Prewired Cables
$\$17^{95}$
Ship code A

Take all the hassle and soldering out of wiring your rig to your TNC with prewired radio cables.

TNC TYPE / Radios	All MFJ TNCs and Multimodes	KAM VHF[5]/ KAM HF[5]/ KPC3[5]/ KPC9612[5]	PK-232	PK900/PK96/ PK12/DSP232 /PacComm/ other TNC-2 compatibles
Alinco[8]/Strd HT	MFJ-5022	MFJ-5022YV	MFJ-5022X	MFJ-5022
Icom[1]/Yaesu/ *RadioShack HTs*	MFJ-5024	MFJ-5024YV	MFJ-5024X	MFJ-5024B
Kenwood[2] HTs	MFJ-5026	MFJ-5026YV	MFJ-5026X	MFJ-5026
Yaesu *R-Series* HT	MFJ-5020	MFJ-5020YV	MFJ-5020X	MFJ-5020R
Yaesu 8-pin	MFJ-5080	MFJ-5080YV MFJ-5080YH	MFJ-5080X	MFJ-5080
Icom[3] 8-pin	MFJ-5084	MFJ-5084YV MFJ-5084YH	MFJ-5084X	MFJ-5084
Kenwood/Alinco *8-pin*	MFJ-5086	MFJ-5086YV MFJ-5086YH	MFJ-5086X	MFJ-5086
Yaesu *8-pin modular*	MFJ-5080M	MFJ-5080MYV	MFJ-5080MX	MFJ-5080M
Icom[4] *8-pin modular*	MFJ-5084M	MFJ-5084MYV	MFJ-5084MX	MFJ-5084M
Kenwood *8-pin modular*	MFJ-5086M	MFJ-5086MYV	MFJ-5086MX	MFJ-5086M
Radio Shack *8-pin modular*	MFJ-5088M	MFJ-5088MYV	MFJ-5088MX	MFJ-5088M

1. does not include IC-W2A
2. does not include 2500
3. does not include 25A, 255A
4. does not include IC-100H, IC-2700H
5. YV for KAM VHF port, YH for KAM HF port. *Other Kantronics use YV*
6. YV for KP9612 1200 baud port
7. YH models for KPC9612 *9600 baud port*
8. Excludes DJ-100, 120T, 200, 500

Pre-wired Accessory Port-to-TNC cables . . . $\$21^{95}$

TNC TYPE / Radios ACC Port	MFJ TNC/MMC PK900/PK12/DSP232 /PacComm/TNC2s	KAM VHF KAM HF KPC3	KPC-9612
ICOM HF 8 Pin DIN	MFJ-5063	MFJ-5063YH	-----------
ICOM VHF 8 Pin DIN	MFJ-5064	MFJ-5064YV	MFJ-5064YV
ICOM 706 13-Pin DIN	MFJ-5065	MFJ-5065YH MFJ-5065YV	MFJ-5065YV
KENW/YAESU, AZDEN VHF 6-Pin mini DIN	MFJ-5060	MFJ-5060YV	MFJ-5060YV
KENW HF 13-Pin DIN	MFJ-5066	MFJ-5066YH	------------

Open End Cables with Radio Connnectors

MFJ-5082, $11.95. 8 pin round mic.
MFJ-5106, $6.95. 6 pin mini DIN.
MFJ-5205, $6.95. 5-pin DIN. MFJ TNC.
MFJ-5208, $11.95. 8 pin DIN. Acc. Port.
MFJ-5213, $11.95. 13-pin DIN, Acc port.
MFJ-5220, $11.95. Yaesu FT-50R cable.
MFJ-5222, $11.95. Split conn. Alinco.
MFJ-5224, $11.95. IC/YA/AL/RS HTs.
MFJ-5226, $11.95. Kenwood Handhelds.
MFJ-5268, $11.95. 8 pin modular mic.

MFJ *PacketOnly*™ Transceivers

MFJ VHF DATA RADIO
POWER
MFJ

MFJ-8621A
$\$189^{95}$
Ship Code B

Why tie up your expensive 2-Meter rig on a single packet channel?

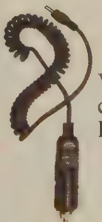
Use this MFJ-8621A/X2 to set up your dedicated packet station.

Combined with the MFJ-1270X TNC above you can have a complete packet station and at a low cost. Enjoy dedicated high quality packet 1200 to 9600 baud on 2-Meters, 24-hours-a-day!

MFJ's data radios are compatible with all TNCs with hardware DCDs and most TNCs with software DCDs. It couldn't be easier -- just plug in appropriate cable, your antenna, 12 VDC and you're ready to go!

MFJ-8621A, $189.95. Ready to operate on 145.01 MHz.
MFJ-8621AX2, $199.95. Ready to operate APRS on 144.390 MHz.

MFJ Cigarette Lighter Cable



Plug in your favorite accessories and operate off your auto's 12 VDC cigarette lighter socket with 3A fuse. Has 2.1 mm DC coaxial plug. Or operate from your power supply in the shack! Provides power to your MFJ analyzer, keyer, meter or tuner lamp, etc. Make quick adjustments to HF/ VHF/ UHF mobile antennas with your analyzer in hand! 18" retracted curly cord, 60" fully stretched.

MFJ-5510C
$\$9^{95}$
Ship code A

MFJ Computer Printer, Serial & USB Cables

MFJ-5412	$11.95	Printer Cable, 36-Pin Centronics to DB-25 male, 6 feet
MFJ-5414	$9.95	Serial Cable, DB-25 male to DB-9 female, 6 feet
MFJ-5313	$9.95	Serial Cable, DB-25 male to DB-25 female, 6 feet
MFJ-5409	$9.95	Serial Cable, DB-9 male to DB-9 female, 6 feet
MFJ-5408	$9.95	Serial Cable, DB-9 female to DB-9 female, 6 feet
MFJ-5419	$9.95	Serial Y-cable, (1) DB-9 female to (2) DB-9 male, 8 inches
MFJ-5430	$2.95	USB A Male to USB B Male, 6 foot cable, beige.

MFJ TNC2 *2400 Baud Modem*

MFJ-2400, $19.95.

2400 baud packet modem for MFJ and TNC2 compatibles. Lessens congestion on crowded bands with faster communication. Still gets 300/1200 baud for other TNC compatibility.

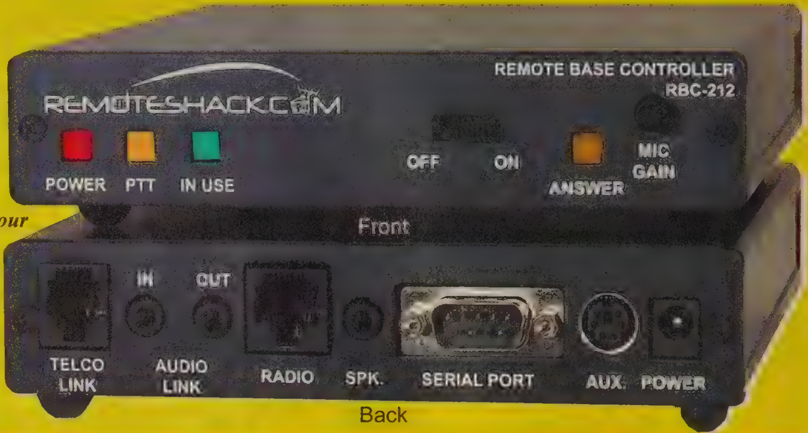
MFJ RemoteShack™

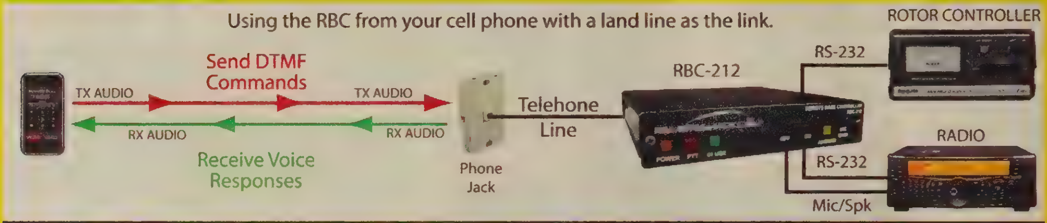
Control your rig . . . Rotate your beam . . . Switch Antennas . . . Use your cellphone or computer/internet to control from anywhere . . . Plug & Play for your transceiver . . . MFJ No Matter What™ Warranty

RBC-212
$499.95

Plug and Play Cable Kit, $79.95.
Each package is specifically wired for your individual rig.

See chart to determine your radio and cable package.




Using the RBC from your cell phone with a land line as the link.

What is the *RemoteShack*™ controller?

RBC-212 is a remote base controller equipped with two link input ports, one radio control port and two multifunction ports each on the AUX and RS-232 ports. The TELCO link port allows connectivity from VOIP services such as Vonage, MagicJack, AT&T or a standard telephone line.

Audio in/out link port allows connection to an audio source such as Skype, or an FM radio link. Both links can be connected simultaneously for redudancy.

With the optional *plug&play* cable kit, installation is accomplished in minutes with only mic gain to adjust. Simply connect the radios' serial and accessory ports to the RBC.

Connect a telephone line to the RBC. Call the telephone number connected to the RBC with your cell phone. The RBC will auto-answer and connect you to your radio. It's that easy!

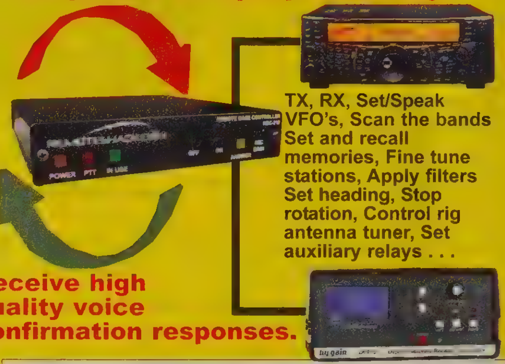
When RBC answers, you will be greeted with a high quality female voice. "Enter your passcode". After you enter your 4-digit DTMF passcode, you will be informed of the remote base status . . . "Welcome. Remote Base Ready! 14.1875 USB".

At this point you will be in receive mode and monitoring the frequency. You can directly change the frequency at any time or scan the bands using different scan speeds.

Each RBC comes with a code "cheat-sheet" to operate your radio and other equipment remotely.

Scan the QRO code and Check out RemoteShack™ on You tube!

Send DTMF commands from your cell phone or laptop remotely



TX, RX, Set/Speak VFO's, Scan the bands Set and recall memories, Fine tune stations, Apply filters Set heading, Stop rotation, Control rig antenna tuner, Set auxiliary relays . . .

Receive high quality voice confirmation responses.

Cable package not included with controller, select from chart below.

Controller # $499.95	Radio Brand	Transceivers Supported	Cable Pkg. # $79.95 each
RBC-212-KN1	Kenwood	870/570/590/2000	RBC-KN1
RBC-212-KN1	Kenwood	TS-480	RBC-KN2
RBC-212-KN3	Kenwood	TM-D710, V71	RBC-KN3
RBC-212-YU1	Yaesu	FT-950	RBC-FT2
RBC-212-YU1	Yaesu	FT-2000/DX5000	RBC-FT3
RBC-212-YU2	Yaesu	FT-450	RBC-FT5
RBC-212-YU4	Yaesu	FT-847	RBC-FT1
RBC-212-YU4	Yaesu	FT-857/897	RBC-FT6
RBC-212-YU6	Yaesu	FT-DX9000	RBC-FT4
RBC-212-EC1	Elecraft	K3, K2	RBC-EC1
RBC-212-EC1	Elecraft	KX-3	RBC-EC3
RBC-212-FX1	Flex	1500/3000	RBC-FX1
RBC-212-FX1	Flex	5000	RBC-FX2
RBC-212-IC1	Icom	IC7000	RBC-IC1
RBC-212-IC2	Icom	IC-706MKII,706	RBC-IC1
RBC-212-IC3	Icom	IC-706MKIIG	RBC-IC1
RBC-212-IC4	Icom	IC-718	RBC-IC5
RBC-212-IC5	Icom	IC-7410/9100	RBC-IC4
RBC-212-IC6	Icom	IC-746	RBC-IC2
RBC-212-IC7	Icom	IC-756	RBC-IC2
RBC-212-IC8	Icom	IC-7600	RBC-IC2
RBC-212-IC9	Icom	IC-7700	RBC-IC3
RBC-212-IC10	Icom	IC-7800	RBC-IC3
RBC-212-IC11	Icom	IC-781	RBC-IC2
RBC-212-IC12	Icom	IC-7200	RBC-IC4

ACCESSORIES

RBC-CMI1, $249.95.
Noise Cancelling Microphone

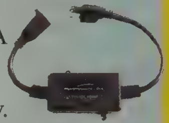
Microphone/Headphone Interface

Plug into your cellphone and get real PTT. Provides receive audio for your car/headphones. Cellphone, phones not included.

RBC-LIC-1, $24.95.
Laptop-to-RBC Interface cable

RBC-DCDC, $24.95.
Powers CMI-1 mobile, +12 DC to 9 VDC Converter.

RBC-120REL, $179.95.
Remote Switched AC Outlet



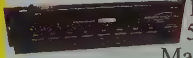
Turns radio (or other 120V/15A device like a power supply) on/off remotely. Required for rigs without remote on/off capability: *all* Icom and older 80-90s rigs.

RBC-80REL, $69.95. 12V/40A.

RBC-8REL, $249.95.
8 SPDT Relay Controller and RF Remote Control

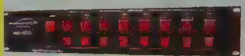
Configure relays momentary/latched, autoswitch relay on after log in/out. Includes 12V supply. Use with 9REL for relay control.

RBC-9REL, $179.95.
120 Volt, 8 outlet Power Strip



Each outlet 5A rated. Max 15 Amps.

RBC-10REL, $189.95.
8 Channel Relay Monitors switch levels and local switch to override 8REL.



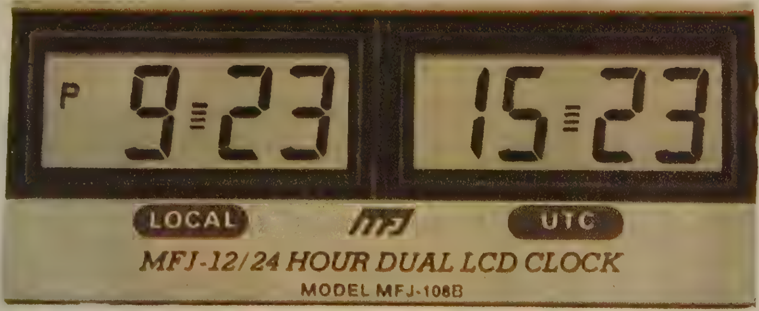
RBC-PSS, $249.95.
Programmable Serial Splitter

Auto-switch your serial port when using RBC-212 -- all devices can be shared.

RBC-CPI1, $179.95.
Cordless Phone Interface

RBC-RCC, $36.95.
Rotator Cable required to control rotator (must have RS-232 port).

MFJ 24/12 Hour Clocks

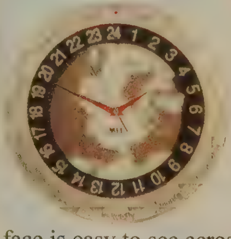


Dual Displays: 24 and 12 Hour Clock

MFJ-108B
$21⁹⁵
Ship code A

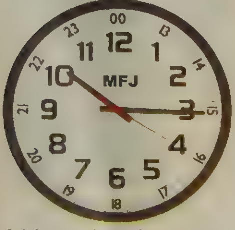
MFJ-108B dual clock has separate 24 hour and 12 hour displays. Lets you read both UTC and local time simultaneously. Features huge high-contrast 5/8 inch LCD numerals that makes it easy to read across the room. Mounted in attractive solid brushed aluminum frame with sloped face for easy viewing. Synchronizable to UTC for split-second timing. Quartz controlled for excellent accuracy. Long life button battery included. 4½Wx1D x2H". MFJ one year limited warranty.

DXer's 24Hr. Wall Clocks



MFJ-115, $24.95. Set this 24 hour Quartz clock to UTC/ GMT and you can determine the time in any time zone of the world at any time of the day. Premier world cities encircle its colorful world map face to indicate time zone. 12" face is easy to see across room. Seconds hand.

MFJ-105D, $24.95. *This is the world's most popular ham radio wall clock!* True 24 hour Quartz movement. Huge 12 inch black face with large white numerals give excellent visibility across room. Attractive gold colored hour, minute and seconds hands looks great on any hamshack or other wall!

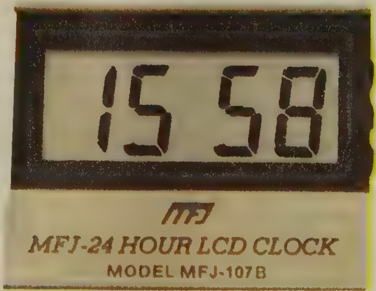


MFJ-126B, $19.95. New! 12 hour Quartz movement gives 12 hour time on inner dial (for XYL) and 1200 to 2400 hour time on its outer dial (for you). Attractive clean, white face is highly visible. Handsome black trim shows 24 hour time format, looks great in any decor.

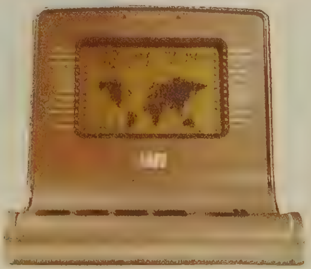
MFJ
Radio Controlled

MFJ-131RC, $39.95. **Read** 24/12 hour time at a single glance on dual time displays! This 12-inch dia. atomic wall clock can be seen from across the room! Liven up any hamshack and automatically receive WWVB signal. Red second hand. Attractive, clean, white, *real* glass face is highly visible and will improve the decor of any room.

Hi-Contrast LCDs



MFJ-107B, $12.95. 24 hour UTC Clock has large 5/8 inch LCD numerals. 2¼x1x2 inches. Synchronizable to UTC. Solid brushed aluminum frame lasts for years. Long life button battery included.



MFJ-112B, $29.95. This *DXers World Map Clock* shows you the time at any QTH throughout the world on an attractive LCD world map. Also shows day of week, month, date and year. Time displays hour/minute/second. Choose 12/24 Hour. Easy pushbuttons move you east and west on the map to display a QTH in every time zone. Daylight saving time feature. Attractive grey. *Cool blue* backlight for night viewing. Great for gift or use as logging clock. 4½Wx3⅜Hx2¼D inches. One year *No Matter What*™ limited warranty.

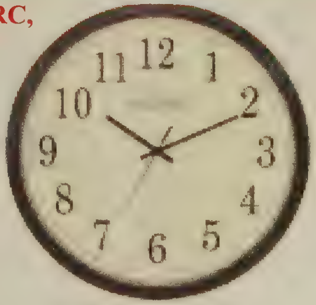
Wireless Forecast Station

MFJ-195RC, $39.95. Weather forecast icons and weather tendency indicator, in/out temps and humidity. Atomic time, DST on/ off, wall/desk mount. Can receive up to 3 sensors. 3.5Wx 5.5Hx1.25D in. Bright display is 1.25Wx3.25H inches. Uses four AA batteries, *not included.*

Solar Power Temp/Hum Station

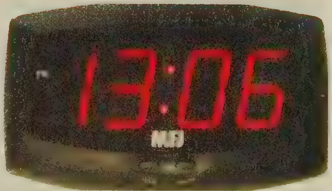
MFJ-141, $29.95. In/Out temps and humidities, min/max temps, solar powered receiver and remote temps/humidity sensor include rechargeable batteries. Desktop, 1¼Wx6½x1¼ inches.

14" *Atomic* Wall Clock



MFJ-137RC, $29.95. **This HUGE** 14" twelve (12) hour clock is a monster! That's why many are used in hospitals and schools across the United States! The MFJ-137RC automatically sets itself and is accurate to the second! DST mode can be disabled. Handsome black with white face looks great in your hamshack, office, hospital, etc. Uses AA battery, not included. Can also manually set.

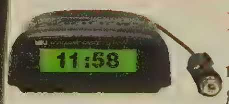
Huge 2.5" LED Clock



MFJ-117, $39.95. This 12/24 hour clock has the biggest and brightest LEDs of any clock we have ever seen! Giant *2.5 inch* super bright LEDs are nearly the width of a 2-Meter HT -- you can see them from across the street, day/night! Perfect for decreasing eyesight. 12/24 hour switch. Wall/ desk mount. Black with bright red LEDs! 12Wx7½H in. Use 9V battery for backup. Hour/minute set buttons. 110 VAC, 60 Hz.

MFJ-113, $19.95. Switchable 12/24 hour display with *HUGE* 1.8" red LEDs. Absolutely shines from across the room. Super compact 3½Hx 9Wx2½D in. 9 minute ID timer, alarm, 9V battery back-up. Use 110 VAC, 60 Hz. Great for the sight impaired!

12 Vdc LED Mobile Clock



MFJ-116DC, $19.95. 12 VDC, plugs in cigarette lighter. Huge .562" green LCD digits! *Great for motor-homes and truckers!* 12 hour time only. Attractive black cabinet, long cord.

MFJ ATOMIC 24/12 HOUR CLOCKS

• Automatically receive WWVB radio signal from National Institute of Standards and Technology in Ft. Collins, Colorado for millisecond accuracy • Choose 24/12 Hour time format or simultaneous dual times • Choose from huge selection of wall or desktop mounts

JUMBO 4" digits solar-powered Atomic clock

TrueUTC™, plus 7 other time zones . . . Thermometer/Hygrometer . . .

Jumbo 4" digits!
MFJ MFJ-139RC
DUAL POWER

This JUMBO LCD clock display boasts giant 4 inch digits and MFJ exclusive *TrueUTC*™ time!

The whole display is 15 3/4Wx10 3/4Hx3/4D inches. You can place it on a desk with its convenient flip stand or hang on your wall.

MFJ-139RC is solar powered so you never need batteries. A power on/off button lets you save the solar power storage when the clock is not in use, like when you are moving or packing it for a DXpedition.

Use 24 or 12 hour time format and you get *TrueUTC*™ time zone plus 8 other time zones including Hawaii and Puerto Rico. A push button lets you select GMT or other time zone on the time zone map. Daylight savings time can also be turned on or off.

MFJ-139RC also has an indoor thermometer and hygrometer to tell you indoor humidity.

It also displays the month, date and day of the week. Everything is displayed in one simultaneous look at this handsome clock. Beautiful metallic tan color and bright LCD display looks great in any hamshack or office building.

MFJ-139RC
$99.95
Ship Code B

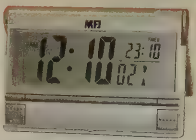
MFJ Atomic Alarm Clock -- SUPER DEAL!

Unbelievable amount of features at such a low price! **HUGE** 1-inch high digits, automatically-controlled for absolute pin-point accuracy, 24/12 hour selectable, DST on/off, dual alarms, 5-min. ID (snooze), fabulous blue backlight, month/date display, indoor thermometer (32-122 degrees F), moonphase, uses just two AAA 1.5V batteries (not included) 3 1/2Wx4Hx1 3/4D in.

New!

MFJ-122RC
$12.95
Ship Code A

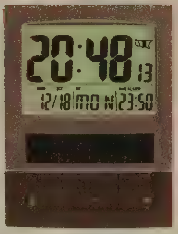
MFJ Dual Time Display Travel Atomic Clock



MFJ-133RC LCD travel clock displays 2 time zones at once. Show UTC and local time or other dual time format! 24 or 12 hour format. Atomic-controlled for absolute pin-point accuracy! Features HUGE 1 1/8" high-contrast numerals easily read 6 feet away . . . but super compact 4Wx3Hx3/4D". Attractive silver clock folds up and slides in your shirt pocket for great travelability.

MFJ-133RC
$34.95
Ship Code A

Solar *Atomic* Clock *never* needs batteries



This fabulous *solar-powered* 24/12 Hour atomic clock never needs batteries, has a large LCD display (time digits 1 5/8x2 1/4") and gives precision accurate time from WWVB. Handsome desktop. Alarm. Compact 3Wx4 1/4Hx1 1/2D in.

MFJ-136RC
$29.95
Ship Code A

In/Out Temp/Cal/Weather Atomics

MFJ-134RC
$39.95
Moonphase
Ship Code B

MFJ-144RC
$39.95
Forecast Icons
Ship Code B

New high-tech 24/12 hour clocks feature in and *wireless* outdoor temp sensors, calendar and *monster size* 2 1/4" time digits --easily seen across the room! Select moonphase or weather forecast icons.

MFJ-134RC and MFJ-144RC *automatically* set themseselves via WWVB from Fort Collins, Colorado. Daylight savings time can be disabled so they can be set to UTC. They also have various alarm settings, calendar display, day-of-week and choice of English, French, or Spanish languages.

Mount on the wall or set on your desk. Wireless sensor is inside 1 1/2Wx5 1/4Hx1D" durable plastic. Hardware included for easy mounting anywhere.

Indoor clocks are 12Wx7 3/4H inches in a handsome dark wood frame with black display and green illuminated backgrounds.

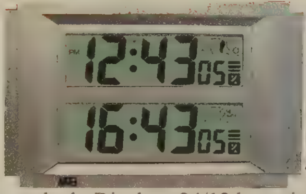
Large Display *Wall Mount Atomic* 24/12 Hour Clocks

24/12 Time/Calendar Temp Atomic Clock

MFJ-130BRC is a 24/12 hour wall/desk mount atomic clock. It has HUGE 1 7/8" digits that can be seen from across your room. This handsome silver and black base with a bright green LCD display looks great in any shack or any other part of the house for that matter. MFJ-130BRC has a running seconds display and also displays the month, date, and day. Indoor temperatures are also displayed and all is simultaneous. Daylight savings time can be disabled. You get all info you need to carry on a ragchew QSO.

MFJ-130BRC
$24.95
Ship Code B

Dual Time Atomic Clock with UTC Zone



See in the Dark!

MFJ-121B
$79.95
Ship Code B

Read both UTC and local time *at-a-single-glance* with this dual atomic clock. Displays 24/12 hour time simultaneously -- each can be independently set. Automatic backlight lights up every day at your preset time for 8 hours. Mounted in a handsome silver-metallic, hard-plastic frame, it features HUGE, *easy-to-see* 1W by 2H inch LCD numerals, an *exclusive* UTC zone and running seconds display. 11 3/8W x7 1/4Hx1D" mounts on wall or desk mount. Daylight savings time can be disabled independently in each clock display. Uses four AA batteries.

Solar Powered Eternity Atomic Clock

MFJ-123B
$59.95
Ship Code B

MFJ's exclusive solar powered *Eternity Atomic Clock*™ works for an "eternity"! No need for batteries or to set time! Receives WWVB signal. Display is a whopping 3 1/2Hx6 1/4W inches with huge 2" time digits. Choose 24 or 12 hour time. Has indoor temperature, running seconds, month/date and day-of-week displays. 9 1/2Wx6 1/4Hx1D in. Attractive silver metallic looks fantastic on the wall or desk mounted in the shack or office! Has power on/off switch for when clock is in storage or not in use.

MFJ *Radio-Controlled* Wrist Watches

Global World Time Atomic Wristwatch has 24/12 face

MFJ-188BRC is the full-featured atomic wristwatch you have been waiting for!

MFJ gives you a dual time ring for 24 and 12 hour formats plus it features US and world time zone settings. Take it with you wherever you go throughout the world!

A highly sensitive radio receiver receives signals from Germany, continental USA, UK and Japan (60 KHz only) according to chosen time zone.

You can also set the time zone to UTC so you can stay on top of the universal time no matter where you are. You can also individually set your wristwatch to any major city in the world. If you are traveling in Russia for instance, you set the time zone to the Moscow time zone and it will search for the signal and keep you on time. When it Japan, set the Tokyo time zone and so on.

MFJ-188BRC also has a super bright LED night light at the 12 O'clock position so you can see it in the dark. Handsome black leather band.

It also has a reception success or failure indication. Now you will know when your wristwatch is keeping you on time or not and not show up to a meeting an hour late.

MFJ-188BRC
$39.95
Ship Code A

24/12 Hr. LCD Wristwatch with Black Band

MFJ-186RC
$19.95
Ship Code A

For an unbelievable **$19.95**, you get a beautiful full-featured atomic watch -- rivals the one your buddies paid $99.95 for!

MFJ's Radio Controlled Wrist Watch automatically receives WWVB signal from the US Atomic Clock located in Fort Collins, CO.

MFJ-186RC lets you switch from 24 hour format or 12 hour format and to different time zones (Pacific, Mountain, Central, and Eastern). Also has running seconds display and day-of-week and date display.

This MFJ radio-controlled wrist watch has an alarm function and also can be used as a stopwatch for standard, accumulated, split-time, or competitor measurements. A backlight will illuminate the LCD display for about three seconds in a brilliant blue.

Year, Month, and Day can be displayed in calendar mode. MFJ-186RC is water-resistant up to 3 ATM - no more fear of the rain as you work hamfest security.

Fancy ham wristwatch

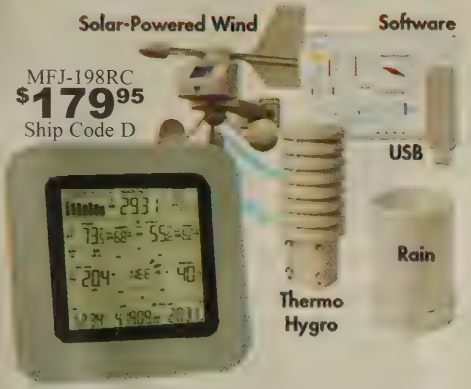
MFJ-189RC
$19.95
Ship Code A

MFJ-189RC has a *genuine* black, leather band that is rich looking and perfect for office style and at the hamfest. It also features *stylish* non-numerical 12-hour and second notches on the silver-metallic face. The analog watch face looks like a work of modern art! Receives the WWVB atomic signal so it always stays accurate. Super easy to set and read.

MFJ Atomic Wireless Weather Station

Now with 100% Solar-Powered Wireless Wind Sensor!

MFJ-198RC
$179.95
Ship Code D



MFJ-198RC receives complete weather data information from three outdoor sensors. Thermo-Hygro sensor transmits a wireless 433 MHz frequency signal.

Included PC Interface; Wind Chill: Direction and Speed; Rain Data; Forecast w/Tendency; IN/OUT Temp; IN/OUT Humidity; Weather Alarms w/Storm Warning.

Records 175 sets of weather data history with "Heavy Weather" PC software. Upload weather data to your PC with easy COM port connection. Weather forecasting function with 3 weather icons, weather tendency indicator.

Wireless outdoor temps (°F or °C), outdoor humidity (%RH), Monitors indoor temps (°F or °C), Monitors indoor humidity (%RH), Records MIN/MAX temps and MIN/MAX humidity with time and date of recording, Barometric air pressure (inHg or hPa), Records MIN/MAX barometric pressure with time and date or recording, Barometric pressure tendency arrow, Dew point (°F or °C), Records MIN/MAX dew point with time and date or recording.

Wind Direction with LCD Compass (numerical (e.g. 225°) or abbreviated characters (e.g. SW), Wind speed (mph, km/h, or m/s, and Beaufort Scale), Records MIN/MAX wind speed with time and date of recording, Rainfall data (inches or millimeters): 1 hour, 24 hour, and total, Self-emptying Rain Bucket, Weather alarm modes for: temperature, humidity, wind chill, dew point, rainfall, wind speed & direction, air pressure, storm warning.

Atomic time/date with manual setting, Auto updates for Daylight Saving Time (on/off option), Perpetual calendar, Time zone setting, Alarm, EL backlight. Wall hang or free stand, AC adapter included, 12/24 hour time display, Calendar display (weekday, date, month, year), Transmission range up to 330 feet (100 meters).

Dimensions: Receiver: 7¼Wx7¼H x½D inches; Thermo: 3Wx5¼Hx2.5D inches; Rain: 5½Wx7Hx2¾D inches; Wind: 9¼Wx10Hx3¼D inches.

Full-color Atomic wireless weather stations

Take a single glance at **MFJ-151RC** or **MFJ-153RC** full-color animated screens and you get all the important weather information you need for your ragchew.

You get Atomic 24/12 hour time and date received from WWVB in Fort Collins, Colorado, a month, day and date display, color forecast icons: sunny, partly sunny, cloudy, rainy or stormy, heat index and dew point, indoor and outdoor temperature and humidity with minimum/maximum and 12-hour forecast based on changing barometric pressure all brightly displayed on a handsome large animated screen.

Indoor temperature range is +32F to +122F (0C to 50C). 1 to 99% RH. Outdoor temperature range is -40F to 140F (-40C to 60C). Each unit has a wireless outdoor sensor that transmits outdoor temperature and humidity over 200 feet. It also has a low battery icon for weather station and sensor. Use up to three outdoor sensors for different areas of the home.

These units will work in all US time zones, including: Atlantic, Eastern, Central, Mountain, Pacific, Alaskan and Hawaiian. Daylight savings time can be turned off.

Light up the display with the press of a button using battery power OR continuous lighting using the included AC adapter with on/off position. There is an LCD light dimmer for night-time use. Has snooze alarm and alarm icon. Sits upright on nightstand or desktop. For battery backup use 3 AA alkaline or lithium batteries, not included.

Charge your phone or other mobile devices using the USB charging port on the back of the units (USB cable not included).

MFJ-151RC is 6¼Wx4⅛Hx2¾D inches, rectangle.

MFJ-153RC is 5¾Wx5¾Hx2D inches, square.

Both units display the same information in slightly different formats. Each station includes one outdoor sensor, 2½Wx4Hx1½D inches. Outdoor sensor requires two AA batteries, not included.

MFJ-151RC
or MFJ-153RC
$49.95
Ship Code A

New!

MFJ-151RC

MFJ-153RC

MFJ Speaker Mics for Yaesu, Icom, Kenwood and Wouxun HTs!

MFJ-295
(Y, I, K,)
Fits Yaesu, Icom, Kenwood
Wouxun and compatibles.
$\$16^{95}$
Ship Code A

MFJ-295R
Fits Yaesu VX-7R series only
$\$19^{95}$
Ship Code A

Here's a top quality handheld speaker mic that fits snugly in your hand! It's perfect for new Yaesu, Icom, Radio Shack, Kenwood, Alinco, ADI and compatible handheld transceivers.

Fits perfectly in your hand and gives booming receive audio so you can monitor stations while the microphone is attached to your lapel -- no more holding the speaker up to your ear! Compact 2Wx3Hx$1\frac{1}{4}$D inches.

MFJ's high-quality non-directional electret condenser microphone gives your handheld crystal clear transmit audio.

The MFJ-295 Microphone has -53 dB sensitivity and 1K Ohm impedance.

Excellent top quality speaker produces 83 dB of crystal clear and loud, booming receive audio. 8 Ohm impedance.

Includes a built-in 3.5 mm earphone jack lets you continuously monitor receive audio and it lets you hear your radio in a loud, noisy environment (*see MFJ-301, $6.95 or MFJ-302, $9.95, below right*).

A top quality PTT thumb switch with an eight-position swivel lapel clip rotates 360 degrees. $3\frac{1}{2}$ feet of durable, stretchable cord. Made of high-impact plastic. Water resistant with protective rubber at all of the bending points, it won't break easily.

Choose your model . . .

MFJ-295Y, $16.95 is for newer Yaesu single prong plugs like Yaesu VX5R and Icom single pin plugs like Q7A.

MFJ-295I, $16.95 is for Icom, Radio Shack, Alinco, ADI and compatibles.

MFJ-295K, $16.95 is for Kenwood, Wouxun, Alinco and other compatibles.

MFJ-295R, $19.95 fits new Yaesu VX-7R handheld radios.

New deluxe Speaker/Mic has Volume control

MFJ-296
(I, K, Y)
$\$21^{95}$
Ship Code A

MFJ-296R
for VX7R
$\$24^{95}$
Ship Code A

This new, *deluxe* speaker microphone has a volume control knob that allows you to set it for a super quiet room or noisy environment like a hamfest or banquet.

MFJ-296 has a 360 degree rotating lapel clip, a first-rate electret mic element and a full-size speaker that gives you superb receive audio.

It also gives you excellent transmitting audio -- *no more muffled sounding audio or scratchy voice transmissions!*

Also has 3.5 mm earphone jack (*see MFJ-301/MFJ-302 right*), momentary PTT switch, and retractable cord.

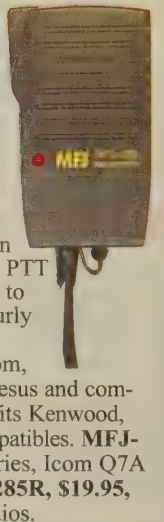
MFJ-296I, $21.95, fits Icom, Radio Shack, older Yaesus and other compatibles.

MFJ-296Y, $21.95, for Yaesu FT50R, VX5R series rigs.

MFJ-296K, $21.95, for Kenwood, Wouxun, Alinco and other compatibles.

MFJ-296R, $24.95, fits Yaesu VX7R handheld series only.

MFJ *Mini* HT Speaker/Mic



MFJ-285
(I, K, Y)
$\$15^{95}$
Ship Code A

MFJ-285R
for VX7R
$\$19^{95}$
Ship Code A

This is the *"Perfect-size"* speaker mic for tiny new HT radios on the market -- Super compact $1\frac{3}{8}$Wx$2\frac{1}{2}$Hx$\frac{1}{2}$D".

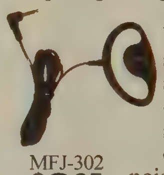
It matches new tiny handheld radios and fits perfectly in the palm of your hand. Sturdy PTT switch, 3.5 mm earphone jack to monitor receive audio long, curly cord.

MFJ- 285I, $15.95, fits Icom, Alinco, Radio Shack, older Yaesus and compatibles. **MFJ-285K, $15.95** fits Kenwood, Wouxun, Alinco and other compatibles. **MFJ-285Y, $15.95,** fits Yaesu R-series, Icom Q7A and other compatibles. **MFJ-285R, $19.95,** fits VX7R series handheld radios.

MFJ *HandyPal* ™ HT Mic Earphone

MFJ-301
$\$6^{95}$
Ship Code A

This MFJ earpiece is the perfect companion for your MFJ or other speaker-microphone. Continuously monitor receive audio and hear your HT in a noisy environment without bothering anybody else. Comfortable foam fits securely in your ear and doesn't hurt. Super lightweight. Fits 3.5 mm jack.

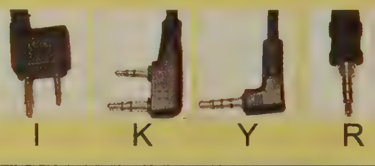


MFJ-302
$\$9^{95}$
Ship Code A

MFJ-302 is similar but has a soft earloop speaker that wraps around your entire ear -- gives a more natural-sounding audio and cuts out background noise -- also has more comfort and security. 3.5 mm jack and cord.

Identify your speaker/mic model

MFJ uses the letters I, K, Y and R to denote what connector is on the speaker mic. **I** is for Icom, some Yaesu, Radio Shack and most Alinco. **K** is for most Kenwood and Wouxun. **Y** is for Yaesu VX5R series and Icom Q7A. **R** is for the new Yaesu VX7R series.

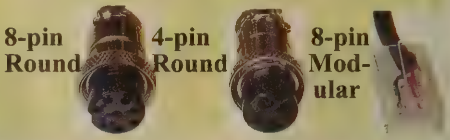


Replacement HF Radio Handheld Microphones

MFJ-290K/Y/I/T
MFJ-290MK/MI/MY
MFJ-290K4/Y4/I4/T4
$\$19^{95}$
Ship Code A

MFJ now offers dynamic HF Radio replacement handheld microphones! Replace your old, beat-up Icom, Kenwood, Yaesu, Alinco, or TenTec microphones.

Gives PTT and quality mic audio. Heavy-duty construction, extra long, spiral cord. **Specify** MFJ-290K/Y/I/T for 8-pin round mic connector. **Select** MFJ-290MI for Icom modular, MFJ-290MK for Kenwood modular and MFJ-290MY for Yaesu modular. **Choose** MFJ-290K4/Y4/I4/T4 for 4-pin round mic connector.



Wouxun/Baofeng Accessories from MFJ

A. MFJ-1717SF, $18.95. $15\frac{3}{4}$", 1/2 Wave on 440 MHz, 2.15 dBi gain. Efficient full-size 1/4 wave antenna on 2M. Factory low SWR. High-Q, It's rugged! SMA female connector screws into HT.

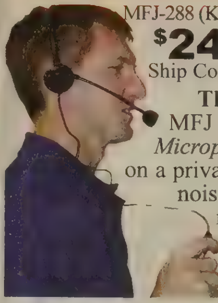
B. MFJ-1717SFZ, $21.95. *New!* Like MFJ-1717SF but "bendable".

C. MFJ-293K, $24.95. Secure, comfortable tiny earbud/boom microphone with comfortable rubber flex earloop. 5 inch flexible boom adjusts to mouth. PTT switch, 6 foot flexible cord.

D. MFJ-295K, $16.95. HT mic fits snugly in the hand! Booming transmit and receive audio. Built-in 3.5 mm earbud jack. PTT sw., lapel clip, $3\frac{1}{2}$ foot cord.

E. MFJ-1719SF, $14.95. *Small-Wonder*™ Wouxun HT antenna is about 1" tall. Transmit 144/440 MHz, also receives 1200 MHz. Great for monitoring 2 Meter activity.

MFJ *Deluxe Headset Microphone™* adds professionalism



MFJ-288 (K, I, Y, R)
$24.95
Ship Code A

This deluxe headset microphone gives hams the professional look they deserve -- great for public service

This MFJ *Deluxe Headset Microphone™* lets you carry on a private QSO while in a noisy environment. The microphone can pick up your voice, whether booming or at a quiet whisper when placed appropriately near your mouth.

The earphone gives superb tonal quality so even distant stations will come in loud and clear. Made of sturdy black plastic and strong metal sliders, one size fits all!

Superb speaker and mic foaming make it super comfortable for long ragchews.

Small PTT switch attaches to your shirt or pants pocket. Six foot cord.

MFJ-288I fits Icom, Radio Shack, older Yaesus, ADI, Alinco, other compatible HTs.

MFJ-288K fits Kenwood, Wouxun and compatible handheld radios.

MFJ-288Y fits VX-5R series, IC-Q7A & compatibles.

MFJ-288R fits new Yaesu VX-7R series handheld transceivers.

MFJ *Featherweight* earbud *Boom Microphone™*

Features rubber flex earloop design for security and comfort and 5-inch boom mic

MFJ-293 (K/Y/I/R)
$24.95
Ship Code A

Finally . . . a secure and comfortable earbud and boom microphone that's as small and inconspicuous as your radio! *No more gaudy, oversized headsets or massive handheld speaker microphones!*

This tiny earbud features a secure and comfortable rubber flex earloop design and 5 inch flexible boom microphone that adjusts perfectly to your mouth. The earloop secures your earbud for a comfortable fit so there's no more worrying about it falling out of your ear.

It's perfect for monitoring your receive audio when you are in a loud environment. MFJ-293's special rubber flex earloop design adjusts to fit the right or left ear (big or small) very securely and comfortably.

Made of a sturdy black polyurethane and comfortable rubber earloop, it'll give years of dependable use. Tiny thumb-sized PTT switch is built right into the 6 feet of cord.

MFJ-293I fits Icom, older Yaesu, Radio Shack, ADI, Alinco and compatible HTs.

MFJ-293K fits Kenwood, Wouxun and other compatibles.

MFJ-293Y fits Yaesu FT10R/40R/50R/VX-1R, Icom IC-Q7A, and other radios using single plug-ins.

MFJ-293R fits Yaesu VX7R series.

All MFJ speaker microphones have MFJ's one year no matter what warranty.

MFJ *Featherweight* Vibration earbud *Microphone™*

Picks up the vibration of your earbone and translates it into a signal through your HT

Background Noise FREE!

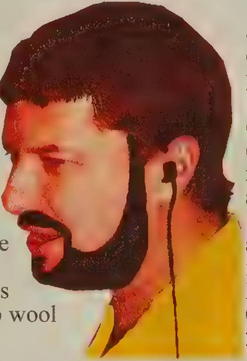
The speaker and microphone are both integrated into the earpiece -- it picks up the vibration of your earbone and then translates the vibration into a signal through your handheld transceiver!

Super Audio Quality! It only transmits the vibrations from your ear -- no background noise!

It's perfect for high-ambient environments like hamfests, traveling through airports, on the bus, riding motorcycles, ATVs, etc. It truly is amazing!

Older competitive versions of earbud vibration mics sounded terrible -- there was background noise and transmissions sounded like a robot was on the other end. With the new MFJ-283 technology only your natural-sounding voice is transmitted.

MFJ-283 (I,K,Y, R)
$29.95
Ship Code A



The PTT switch has velcro for attaching to wool clothes or your belt.

Two clips on the cord let you position and secure the earpiece/PTT to your body comfortably and a 42-inch durable cord lets you snake it around your body how you want.

You can also almost totally conceal your cord, PTT and earpiece. You'll look like a detective, airport security or even a government spy -- nobody will even realize you are on your handheld radio talking.

MFJ-283I for Icom, Shack, Alinco, ADI and older Yaesu transceivers. **MFJ-283K** for Kenwood, Wouxun and compatibles. **MFJ-283Y** for Yaesu VX5R series, Icom Q7A, and other single plugs. *New!* **MFJ-283R** for Yaesu VX-7R and compatibles.

MFJ *Featherweight* Earbud Speaker Microphone

Tiny earphone and thumbsize microphone/PTT switch is built right into the cord! It's barely noticeable and so lightweight, you won't know it's there!

MFJ-292 (K,Y)
$17.95
Ship Code A

MFJ-292R
VX7R series
$19.95
Ship Code A

***Be Cool!* MFJ's** *Featherweight Earbud/Mic* has a tiny earphone and thumb-size microphone/PTT switch built right into the cord.

It's barely noticeable and so lightweight you won't know it's there -- people will think you are a detective or airport security or even a government spy!

Get crystal clear receive/transmit audio out of an ultra-light (30 grams) speaker. Non-directional electret condenser mic has -64 dB sensitivity, 1.1K Ohm impedance. Has 4 foot cord.

MFJ-292K for Kenwood, Wouxun and compatibles.

MFJ-292Y for Yaesu FT-10R/40R/50R, and VX-1R/VX5R series.

MFJ-292R, $19.95, fits new Yaesu VX-7R series handhelds.

MFJ BoomMic/FM Scan

MFJ-284, $29.95, same as MFJ-293, but adds an FM broadcast scan radio inside the tiny PTT switch. Lets you catch up on the news or listen to music or sports while monitoring a 2-Meter operating frequency! Auto switches from FM to HT audio when monitoring frequency is detected. Batteries included. Order **MFJ-284I** (Icom) and **MFJ-284Y** for Yaesu VX5R series and the Icom Q7A handhelds.

MFJ Neckset Microphone doesn't mess up your hair!

MFJ-282, $24.95.

Don't mess up your hair and you can still wear your cap!

MFJ-282 stays naturally hidden behind your neck.

Super audio, lightweight and comfortable!

MFJ-282I fits Icom and older Yaesu; **MFJ-282K** fits Kenwood, Wouxun and compatibles; **MFJ-282Y** fits Yaesu FT-50R, VX5R-series, Icom Q7A; **MFJ-282R** fits VX7R series.

MFJ's handheld "Rubber Duck" antennas

High Gain *Dual Band* HT Flexible Duck Antennas

A. MFJ-1717, $18.95. ***The World's best selling HT antenna!*** When other rubber ducks just give you noise, you'll enjoy dependable QSOs with the MFJ-1717. Only 15$^3/_4$" in length, it's a halfwave on 440 MHz that gives you a hearty 2.15 dBi gain. On 2 Meters, you get an efficient full-size 1/4 wave antenna for full size performance. MFJ-1717 is precisely tuned at the factory for low SWR. High-Q, low loss construction gives you maximum radiated power! BNC connector. Rugged! It'll take all the bending, twisting, flexing and tugging you can dish out, and just pop right back up. Radiator is protected by a durable synthetic rubber compound and has a hard protective safety tip. Strong rigid base protects the matching network from flexing and changing frequency. Handles 25 Watts PEP. Durable construction. MFJ-1717 has BNC.

MFJ-1717S, $18.95. Similar to MFJ-1717, but has male SMA connector.

B. MFJ-1717SF, $18.95. Similar to MFJ-1717S, but has female SMA connector. Fits the new, popular Wouxun handheld radios.

C. MFJ-1717SZ, $21.95. ***New!*** Similar to MFJ-1717S but with SMA female and is *"bendable"*. Bend into any shape, tie it into a knot or roll it up and stick it in your shirt pocket. MFJ *Flex-It*™ is for those concerned with stiff antennas in the side of their gut. Shape/Re-shape for whatever reason and it pops back to form when ready to operate. Has same performing abilities as the popular MFJ-1717/S.

MFJ-1717SFZ, $21.95. SMA female connector for Wouxun/Baofeng HTs.

D. MFJ-1716, $14.95. Dual band 144/440 MHz Flex duck like MFJ-1717, but 7$^1/_2$" length, 1/4 wave on 440 MHz and loaded 1/4 wave on 2M. Tough, durable. BNC.

MFJ-1716S SMA male. ***New!* MFJ-1716SF** for Baofeng/Wouxun. Has SMA female.

MFJ *SuperFlex* ThinDucks™

A. MFJ-1715, $19.95. Tie it in a knot . . . when you use it, it'll bounce back in shape -- you can't break it! Takes all the bending, twisting, flexing and tugging you can dish out, pops right back! MFJ-1715 12$^1/_2$" *SuperFLEX*™ radiator is a $^1/_2$ wave on 440 MHz -- gives a hearty 2.15 dBi gain. On 2 Meters it's an efficient full size $^1/_4$ wave antenna. Safety tip, durable synthetic rubber. Add "S" for SMA male. Add **"SF"** for Baofeng/Wouxun radios. SMA female.

B. MFJ-1713, $16.95. 5$^1/_2$" similar to MFJ-1715 except for 440 gain. 1/4 wave on 440 MHz and an efficient loaded 1/4 wave on 2M. Add "S" for SMA male. **"SF"** for Baofeng/Wouxun, SMA female.

MFJ *Telescopic* Handheld Antenna Range Extenders

A. MFJ-1714, $16.95. For *really long range* this endfed 1/2 wave 2-M is hard to beat! Out-performs 5/8 wave because the 5/8 wave needs a ground plane. 10.5" collapsed, it's just a duck. 40" extended gives you a ***LongRanger***™!

MFJ-1714S, $16.95. Like above, is SMA male. ***New!* MFJ-1714SF** for Baofeng/Wouxun HTs, has SMA female.

B. MFJ-1712, $14.95. This telescopic *Dual Band* (144/440 MHz) is a $^1/_4$ wave on 2 Meters, 5/8 wave with gain on 440 MHz. Just 4$^1/_2$ inches collapsed. Acts like a rubber duck. 16" ext. for superior performance.

MFJ-1712S, $14.95. Like MFJ-1712, but has SMA male connector.

MFJ-1712SF, $14.95. Baofeng/Wouxun HTs. SMA female.

C. MFJ-1710, $9.95. **The** *PocketLinear*™ is a pen-sized 3/8 wave for 2 Meters! Carry this antenna in your shirt pocket like a pen with a pocket clip. When your rubber ducky just won't receive well, pull it out, extend to 24" and carry on your QSO. BNC. Tiny 5$^1/_4$" collapsed.

MFJ-1710S, $9.95. Like MFJ-1710 but with SMA male connector.

SmallWonder™ *Flexi-Antenna*

MFJ-1739S/1739SF, $16.95. This dual band 144/440 MHz *Flexi-Duck antenna* is just 2$^1/_2$ inches tall. You can also receive the Airband, 800 and 900 MHz for more listening fun! 1/4 Wave, handles 6 W. SMA male or SMA female.

SmallWonder™ *HT Antenna*

MFJ-1719/MFJ-1719S/SF, $14.95. This HT Antenna is truly amazing for its size! Less than 1" tall, it's great for traveling and monitoring calls. It doesn't get in your way! Receives and transmits on 2 Meter/440 MHz. Also receives great signals at 1200 MHz. **MFJ-1719** has BNC, **MFJ-1719S** has **SMA** male. ***New!*** **MFJ-1719SF** has SMA female connector, fits Wouxun Handhelds.

MFJ 2-Meter Pocket Roll-up

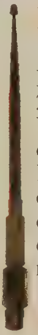
MFJ-1730, $29.95. Roll up this 1/2 wave 2-Meter antenna and stick it in your pocket. Vacations, camping, etc. Get home station performance *on-the-go*! Just 75" long. Hang in a tree, plug the BNC into your HT and enjoy some great QSOs. Omni-directional, has significant gain over a $^1/_4$ wave. Doesn't need a ground plane so it's convenient for indoors. Handles 200 Watts.

MFJ-1731, $29.95. 440 MHz pocket roll-up antenna, 1/2 wave. 51" roll-up J-pole for 440 MHz like MFJ-1730.

Back-of-Radio 144/440 Base

MFJ-1717PL, $24.95. Plug into a 2 Meter/440 MHz mobile/base rig -- not a 10-element yagi but it'll get you out in a hurry! Fold-over, flexi-duck, PL-259. 2 dBi gain on 440 MHz, full-size 1/4 wave 2 Meter. Hi-Q, low loss construction. 16$^1/_2$", hard safety tip. Handles 25 Watts PEP. **MFJ-1717P, $24.95.** Like MFJ-1717PL, but no fold-over. Has straight PL-259.

MFJ "Long-John" HT Antenna

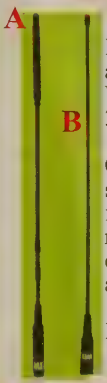


MFJ-1818, $24.95. This "Long-John" HT antenna gives you a whopping gain on 2-Meters! You get 2.15 dBi gain in a 1/2 Wave, super efficient antenna. 9 inches collapsed and 38$^1/_2$ inches fully extended. Has a *FlexSpring*™ base that prevents your connector from breaking. It's tough, durable and well-protected for years of dependable service. 50 Ohms, BNC connector. Handles maximum 10 Watts.

MFJ Scanner/Receiver Antenna

MFJ-1811, $14.95. Dedicate this antenna to your Scanner or Receiver operations. Features both telescopic and foldover attributes. Folds-over to create right angle connection to back of base or mobile, and it telescopes/collapses for your HT. It's 24" extended and 7" collapsed. 1.8-1800 MHz, has 2.15 dB gain. 10 Watts, 50 Ohms. BNC connector. VSWR is 1.5:1.

MFJ *Triple Band* FlexiDucks™



A. MFJ-1720S, $29.95. MFJ's Triple Band **2M/6M/440** HT *FlexiDuck*™ antenna is 19 inches tall -- It's a 5/8 Wave on 440 MHz to give you a hearty 3.2 dBi gain. On 2 Meters you get a 1/4 Wave antenna with 2.15 dBi gain. On 6 Meters you get an efficient full size 1/4 Wave antenna for full-size performance. Precision-tuned at the factory for low SWR. High-Q, low loss construction gives you maximum radiated power. 10 Watts. SMA male.

B. MFJ-1718S, $24.95. MFJ Triple Band **2M/220/440** MHz HT *FlexiDuck*™. 17 inches tall. SMA male connector.

Foldover Telescopic HT antenna

MFJ-1812, $19.95. Dual band 144/440 MHz HT antenna combines telescopic and foldover features in a single antenna. Extends to improve range plus it folds over to get out of the way of your gut. MFJ-1812 is just 6" retracted and 16" extended. High Q low loss construction, super durability for years of use.

MFJ *Compact* Magnet Mounts

Put your flexible HT duck on the roof of your car! Tiny but powerful magnet is 2$^3/_4$"dia. -- strong!

MFJ-332S, $14.95. SMA female connector. 12 feet of tough, flexible RG-58AU coax with SMA male end.

MFJ-332B, $14.95. Like MFJ-332S but has BNC female with BNC male coax.

MFJ Accessories for FT-817 and Other QRP rigs

MFJ Walkabout Antenna 80 through 6 Meters

MFJ-1899T
$79.95
Ship Code A

Work DX walking about!

This MFJ *Walkabout* antenna is designed for the FT-817 and other QRP rigs.

Covers all bands 80 Meters through 6 Meters including WARC Bands.

Its ten section telescoping whip is 52 inches fully extended and is 7 inches when collapsed.

The whip unscrews from the 12 inch base loading coil. It is ultra-compact for easy traveling. Handles 25 Watts.

You change bands by plugging the "wander lead" into the appropriate socket on the base coil. Fine tuning is done by adjusting the telescopic whip.

Has BNC connector. Use adapter for SO-239.

Single Band Walkabouts 6/10/12/15/17/20/30/40/80

6/10,12,15,17,20 M	30/40/80 Meters
$24.95	**$34.95**
Ship Code A	Ship Code A

Highly efficient single band *Walkabout* antennas for the FT-817 and other QRP rigs let you work exciting DX *no matter where you are -- hotel, mountain top, etc.!*

Each 10 section telescoping whip is 51 inches fully extended and collapses to 5 1/2 inches and screws into a base loading coil. Handles 25 Watts. Has BNC connector. Use adapter for SO-239. MFJ-7703, $7.95, below.

MFJ-1806T	(6M)	$24.95
MFJ-1810T	(10M)	$24.95
MFJ-1812T	(12M)	$24.95
MFJ-1815T	(15M)	$24.95
MFJ-1817T	(17M)	$24.95
MFJ-1820T	(20M)	$24.95
MFJ-1830T	(30M)	$29.95
MFJ-1840T	(40M)	$29.95
MFJ-1880T	(80M)	$29.95

Tiny 10 oz. Switching Power Supply for Yaesu FT-817 and QRP Rigs.

MFJ-4103
$49.95
Ship Code A

MFJ-4103 *Miniature Switching Power Supply* can deliver up to 40 Watts (13.8 VDC at 2.89 Amps) of reliable power anywhere in the world.

Incredibly tiny -- 4 1/8X 2 5/8X1 3/8" and weighs just 10oz., including power cord, connector. Output DC cable with a standard coaxial DC power connector (2.1mm ID, 5.5mm OD).

Sturdy adapter cable included for Yaesu radios. The MFJ-4103 has excellent specs and out performs all other switching power supplies made for the FT-817. Perfect for QRP rigs needing up to 2.89 Amps.

Works for input voltages 100-240 VAC and power line frequencies 47-63 HZ. Use the MFJ-4103 almost anywhere in the world by plugging in an AC power cord with an appropriate wall plug for that country (Not included. Laptop computer AC cord recommended).

Overvoltage, overcurrent and overtemp protected. Excellent 1% line and 5% load regulation and 1% peak to peak ripple/noise. Op temperature is 0-40° C.

Mean time between failure is 100,000 hours at full load at 25° C ambient. Meets FCC part 15 class B, UL 1950 and CSA 22.2.

2-Meter / 440 MHz "Back-of-Radio" Antenna

MFJ-1717PL, $24.95. Foldover dual band flex-duck 16 1/2 inch antenna with quality PL-259 connector. Hearty 2.15 dBi gain on 440 MHz and full size 1/4 Wave on 2 Meters.

PL-259-to-BNC *right angle*

MFJ-7703, $7.95. Sturdy, adapter for your FT-817 and multimode HF antennas like MFJ-1899T. Reinforced elbow for less stress on radio connector.

MFJ Miniature Travel Iambic Paddle

MFJ-561, $24.95. 1 3/4Wx1 3/4Dx3/4H inches. Full size feel for smooth, easy CW. Precision formed from resilient phosphorous bronze. Stainless steel base with rubber feet. 3 foot cord, 3.5 mm plug.

MFJ Pocket Repeater

Extend range of any radio 2 Meter, 440 MHz, Handhelds, Mobile, Base!!

REC
RADIO INTERFACE
MFJ
PWR
MFJ-662

MFJ-662
$89.95
Ship Code A

When you and your buddy are out of radio range, the MFJ Simplex Pocket Repeater™ greatly extends your range. You can have your own private, portable repeater within your neighborhood or when hunting, fishing, camping, hiking, caravanning on-the-roadside.

During a disaster, your MFJ-662 can provide emergency communications when repeaters are down. You can communicate way beyond the normal range of your handheld or mobile.

Works with virtually any radios in any mode or frequency in any ham band or business band. *It's Legal!* As a simplex repeater, MFJ-662 with another radio digitally records audio from an out-of-range HT/Mobile, then retransmits to other HT/Mobiles.Tiny, pocket -size 2 1/4Wx3 3/4Hx1D".

Repeats up to 32 second messages. LED lights when recording. On/Off switch. 5 pin header for radio cable (connector included). Use 9 volt battery, 9-15 VDC or 110 VAC with optional MFJ-1312D, *$15.95*. Pre-wired cables for most radios, *$17.95. See cable column on page 53.*

MFJ Radio Voice Mail

MFJ
MFJ-664
Voice Mail
STOP/RESET
STATUS
POWER

MFJ-664
$139.95
Ship Code A

Two way radio voice mail lets you and your friends or family leave and retrieve voice messages for each other.

When in radio range, stay in touch 24-hours-a-day no matter where you are. Program custom access codes and security codes so you can decide who uses your *Radio voice mail.* It's your own private, portable repeater. MFJ-664 can provide emergency communications when repeaters are down.

Test your own signal quality by repeating your transmission thru another radio. Automatically repeat recorded message continuously. Great for determining band openings, foxhunting and public service announcements.

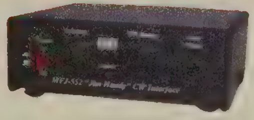
Non-volatile memory -- up to 2 full minutes of voice messages. Keypad can be used for remote operation with Morse code verification of functions. End-of-message beep and output level control for clean audio. Use 9V battery or 9-15 VDC or 110 VAC with MFJ-1312D, *$15.95*. 4Wx3 1/2 Dx1 1/2H inches. Use any radio. With PTT or mic closure sensing. Pre-wired cables for Yaesu. (See page 53).

MFJ JimHandy™ CW Interface lets you use your HT for on-the-air CW Fun

MFJ's *JimHandy*™ CW interface plugs into your 144/440 MHz handheld and converts it into a modulated CW transceiver -- just plug in your key.

Get your ham buddies together *on-the-air* and enjoy some fantastic CW fun. Run a little code practice on your repeater. Start your own FM CW Net. Have fun and upgrade!

MFJ-552
$99.95
Ship Code A



A transmit/receive switch automatically switches your HT to transmit when you send CW and returns you to your receive signal when you stop keying.

Built-in speaker, volume control and great sounding *true* sinewave sidetone -- no harsh keyclicks. 4Wx1 1/4Hx3 1/4D inches.

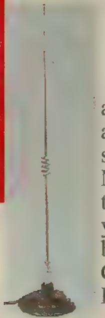
Use 9V battery (not included).

Pre-wired patch cables, $17.95 for your HT on page 38.

MFJ-550 key only, **$14.95.**

MFJ VHF/UHF *MAGNET MOUNT* MOBILE ANTENNAS

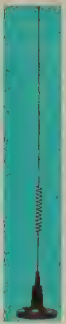
Magnet Mount Dual Band 144/440 MHz Mobile



MFJ-1724B
$24.95
Ship Code B

This MFJ-1724B is the world's best selling dual band 2 Meter/440 MHz magnet mount mobile antenna! It's perfect for your dual band mobile or HT. Free BNC handheld adapter. MFJ's powerful 3 1/2 inch magnet base holds your antenna firmly even at highway speeds. The base has a scratch resistant rubber guard to protect your car. The MFJ-1724B black stainless steel whip looks like an attractive cellular antenna. Only 19 inches tall, you can park in your garage without knocking is over. Low SWR across both bands keeps your transceiver safe from overheating. Get excellent gain on 440 MHz band and 2 Meters. Handles 300 Watts PEP. 12 feet coax, PL-259.

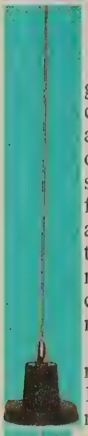
*Power*Gain™ Dual Band 144/440 MHz Mobile*



MFJ-1729
$39.95
Ship Code B

MFJ's *Power*Gain*™ is ham radio's most powerful dual band magnet mount mobile antenna! Outstanding gain on 440 MHz and 2 Meters. Low SWR lets your rig deliver full power safely. Get a whopping 2.6 dB gain on 2 Meters and 6.3 dB gain on 440 MHz. Perfect for dual band mobiles or HTs. Free BNC adapter. Handles 300 Watts PEP. MFJ's exclusive 27 1/2 inch stainless steel *SlimLine Radiator*™ minimizes wind vibration for less SWR flutter giving you longer range and better readability. Includes 12 feet of coax with PL 259 Connector, heavy duty magnet mount. **MFJ-1723, $39.95.** Similar to MFJ-1729, covers 220 MHz, 2.6dB gain. 22.5 inch radiator.

MFJ 5/8 Wave 2/6 Meter Magnet Mount Mobile



MFJ-1728B	MFJ-1728S/M/T
$26.95	**$24.95**
Ship Code B	Ship Code B

MFJ's 5/8 wave on 2M give you the maximum possible theoretical gain of any single element mobile antenna, no matter how much others cost. On 6M, it is a high performance full quarter wave antenna. It's an excellent companion for your MFJ-9406 or other 6 Meter mobile or HT. Gives you great *"magic band"* signals used mobile or as a base station antenna. It's perfect for your mobile or HT. **MFJ-1728B** comes with a *free* **BNC** adapter. It's rated at 300 Watts PEP. Low SWR lets your transceiver deliver full power safely. Heavy duty magnet mount holds your antenna tight at highway speeds. 12 ft. of coax. Stainless steel radiator will endure years of harsh mobile use. Handy Allen wrench included.

NEW! Order the popular MFJ-1728B without a magnet mount and mount to your existing mount. Order **MFJ-1728S** for **SO-239** connector, **MFJ-1728M** for **NMO** connector, and **MFJ-1728T** for **3/8-24** threaded connector.

MFJ Glass Mount Dual Band 144/440 Mobiles

A MFJ-1734
Dual Bander
$44.95
Ship Code B

B MFJ-1738
2-Meters
$34.95
Ship Code B

Glass mount dual band 144/440 MHz mobile. A 6 inch counterpoise mounted inside lowers SWR and makes tuning easy.

Excellent gain on 440 MHz and 2 Meters. Low SWR lets your transceiver deliver full power safely.

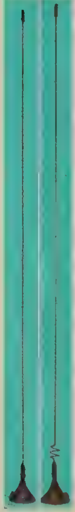
MFJ's Exclusive 26 inch stainless steel radiator minimizes wind vibration for less SWR flutter.

Gives you much longer range and better readability. Handles 50 Watts. 12 Ft. tough coaxial line, cleaning pad and mounting hardware.

MFJ-1738, $34.95. Similar to MFJ-1734 but 2 Meter mobile glass mount antenna.

MFJ-94, $4.95. Remount Kit for Glass Mounts. Avoid factory tint placement.

MFJ UltraLite™ Mag Mounts

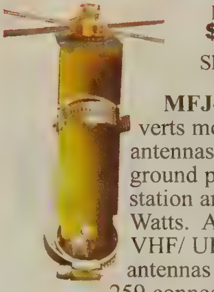


MFJ-1721
Two Meters
$12.95
Ship Code A

MFJ-1722/S
Dual Bander
$14.95
Ship Code A

MFJ-1721, (left) is an *UltraLite*™ Mobile magnet mount antenna. 12 ft. RG-174U coax. 1/4 wave on 2-Meters. Weighs less than 2 oz. 1/8" rare earth magnet. Thin 20 inch flexible whip. BNC. **MFJ-1722, (right)** is similar to MFJ-1721, but dual Band *UltraLite*™. 5/8 Wave on 440 MHz. 1/4 Wave on 2 Meters. **MFJ-1722S**, similar to MFJ-1722 but has SMA.

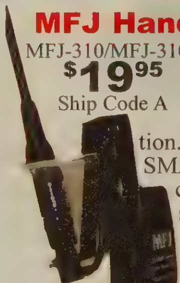
MFJ Mobile Antenna Ground Plane Kit



MFJ-1401
$29.95
Ship Code B

MFJ-1401 converts most mobile antennas into a ground plane base station antenna. 200 Watts. Accepts VHF/ UHF mobile antennas with PL-259 connector. Includes stainless steel mounting hardware, two hose clamps, allen wrench, and four 20.5 inch radials. Easy installation: 6 1/4" tall bracket fits on any 2-inch pipe with clamps or mounting holes.

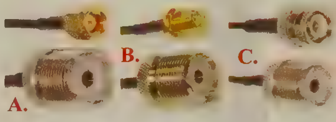
MFJ Handheld Antenna Window Mount



MFJ-310/MFJ-310S
$19.95
Ship Code A

This Handheld Antenna Window Mount gets your antenna *outside* where it can radiate freely -- takes away the auto shielding effect and gives increased signal strength and reception. Use 144/440 MHz handheld radio with BNC or SMA connector. Includes 10 feet of mini RG-58 coaxial line. The indoor portion of the mount safely rolls up inside your auto's window. Your antenna is mounted outside where it can radiate freely and provide you with great performance! Order "S" for SMA connector.

SMA/BNC Cables and Adaptors



Release strain on your HT's antenna connector! Choose SMA or BNC. Flexible, mini coax, 3 foot.

A. MFJ-5612S, $14.95. SMA Male to SO-239 adapter cable.

B. MFJ-5612SF, $14.95. SMA Female to SO-239 adapter cable for Wouxun and Baofeng handhelds.

C. MFJ-5612B, $14.95. BNC Male to SO-239 adapter cable.

MFJ-7716, $4.95 each. SMA female to BNC male adaptor.

MFJ-7718, $4.95 each. SMA male to BNC female adaptor.

MFJ-7719, $4.95 each SMA male to SO-239 adaptor.

MFJ Classic *HamGear*™ Apparel

MFJ-15, $14.95. Durable HT pocket with elastic cord and velcro closure fits on your belt -- keeps radio secure.

MFJ-6200, $19.95. This MFJ waistpack is the perfect hamfest, DXpedition or field day *hands-free* carry-all. It has an amazing 9 spots to put your ham radio gear, tools, accessories, refreshments, etc.

MFJ-18, $29.95. This MFJ Radio chest harness holds your handheld radio or cell phone snugly for no worries, *hands-free* operation. Great for rugged action use like DX peditions, field day, biking, hiking, hamfests, search & rescue, etc. Accessory pockets. One size fits all.

MFJ Coffee Mug

MFJ
the world leader in ham radio accessories!

One year Warranty does not apply!

MFJ-9-102, $3.95. Porcelain MFJ Coffee Mug with Ameritron, Hygain, Cushcraft, Mirage and Vectronics on other side. Great with your favorite hot or cold beverage, but clean it first. Warranty doesn't apply.

MFJ Gift Certificates

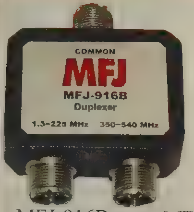
MFJ can make that special day for your lovable ham even more special! MFJ Gift certificates are available at any time -- Christmas, Valentines Day, Birthdays, just for the heckuva it, whenever.

Call 1-800-647-1800.

Any gift amount can be purchased for your ham loved one or buddy. Use your credit card, paypal account or simply send personal check or money order.

MFJ Duplexers and Triplexers, HF to 1.2 GHz

MFJ-916B HF/VHF/UHF Duplexer handles 200W



MFJ-916B
$24^95
Ship Code A

COMMON
MFJ
MFJ-916BC
Duplexer
1.3-225 MHz 350-540 MHz

MFJ-916BC
$49^95
Ship Code A

This duplexer lets you use HF or 2 Meter/440 MHz antennas with separate HF or 2 Meter and 440 MHz rigs without a built-in duplexer.

Also use two dual band antennas with a dual band rig with only one RF output. Heavy-duty diecast enclosure houses low pass networks that separate/combine 144/440 MHz signals. Low loss SO-239s. 50 Ohm ports, 200 Watts PEP.

MFJ-916BN, $29.95. Like MFJ-916B but has type N connectors for low loss.

Duplexer with coax pigtails

MFJ-916BC, like MFJ-916B but has 3' coax pigtails w/PL-259s on duplex sections.

Mast Mount Duplexer

New!

MFJ-916BM, $59.95. Like MFJ-916B but designed for outdoor use. Save coax, reduce losses. Tower leg or mast pole mount near your antennas. Heavy-duty weather protected PVC housing, mounting bracket. U-bolt fits up to 1½" diameter mast or pipe. Measures 3½Wx3½Hx5D inches. **MFJ-916BMN, $69.95,** N connectors.

MFJ HF/6M/VHF/UHF 200/600W Duplexers

MFJ-4916S
$59^95
Ship Code A

MFJ-4906S
$59^95
Ship Code A

MFJ-4956S
$34^95
Ship Code A

Use an HF, 2 Meter, 6 Meter or 440 MHz antenna with a separate HF, 2 Meter, 6 Meter or 440 MHz transceiver without a built-in duplexer.

Or use two dual-band antennas with a single dual-band transceiver with only one RF output.

Heavy duty diecast enclosure houses low pass networks that separate or combine HF/6M/144/440 MHz signals. Ports are 50 Ohms, handle 600 Watts PEP.

MFJ-4956S, $34.95.
SO-239 connectors and handle 500 watts HF/6M, 300 Watts on 144/440 MHz.

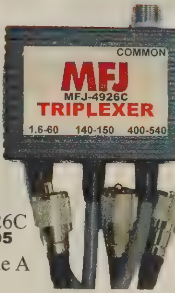
MFJ-4916S/4906S, $59.95.
These units have SO-239 connectors and handle *600 Watts PEP*.

Model #	**MFJ-916B**	**MFJ-916BN**	**MFJ-916BC**	**MFJ-4916S**	**MFJ-4906S**	**MFJ-4956S**
Price	**$24.95**	**$29.95**	**$49.95**	**$59.95**	**$59.95**	**$34.95**
Freq (MHz)	1.6-225 350-540	1.6-225 350-540	1.6-225 350-540	1.6-56 140-170	1.6-30 50-54	1.3-60 130-540
Output	SO-239	N-Female	Pigtail/259	SO-239	SO-239	SO-239
Output	SO-239	N-Female	Pigtail/259	SO-239	SO-239	SO-239
Input	SO-239	N-Female	SO-239	SO-239	SO-239	SO-239
Power Watts	200	200	200	600	600	500/300
Insert Loss	.20 dB	.20 dB	.20 dB	.20 dB	.20 dB	.20 dB
VSWR	< 1.2	< 1.2	< 1.2	< 1.2	<1.2	<1.2
Isolation	> 55 dB	> 55 dB	> 55 dB	> 55 dB	>55 dB	>60 dB
Impedance	50 Ohms	50 Ohms	50 Ohms	50 Ohms	50 Ohms	50 Ohms

HF/VHF/UHF/1.2 GHz 200/500/800 Watt Triplexers

COMMON
MFJ
MFJ-4926S
TRIPLEXER
1.6-60 140-150 400-540

MFJ-4926S
$59^95
Ship Code A



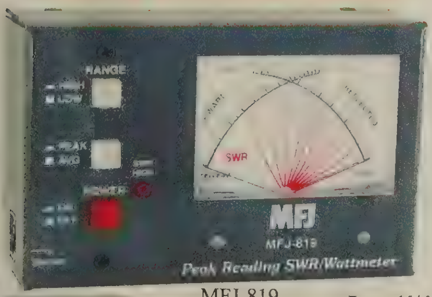
MFJ-4926C
$69^95
Ship Code A

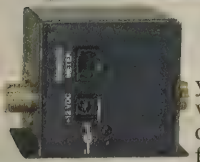
Use HF, 6M, 2M, 440 MHz and 1.2 GHz antennas with a transceiver without a built-in triplexer. Or use 3 different transceivers with one HF/VHF/UHF/1.2 GHZ antenna. Heavy-duty diecast enclosure houses low pass networks that separate/combine HF/6M, 144/440 MHz and 1.2 GHz signals. Ports are 50 Ohms, units handle 200, 500 and 800 Watts PEP. **MFJ-4926S** has *SO-239* connectors and handles 800 Watts. **MFJ-4926C** has 12" *coaxial PL-259 pigtails*. **MFJ-4936S** has *SO-239* connectors and *handles 500 Watts*. **MFJ-4946SN** has both *type N* and SO-239 connectors.

	MFJ-4926S	**MFJ-4926C**	**MFJ-4936S**	**MFJ4946SN**
Price	**$59.95**	**$69.95**	**$69.95**	**$69.95**
Freq (MHz)	1.6-60 110-170 350-570	1.6-60 110-170 350-570	1.6-150 220-225 400-550	1.6-160 350-550 850-1300
Output Con	SO-239	Pigtail PL259	SO-239	SO-239
Output Con	SO-239	Pigtail PL259	SO-239	SO-239
Output Con	SO-239	Pigtail PL259	SO-239	N-Female
Input Con	N Female	SO-239	SO-239	N-Female
Power (W)	800/500/500	800/500/500	500/500/500	800/500/200
Insertion Loss	.20/.20/.20 dB	.20/.20/.20 dB	.23/.23/.30 dB	.20/.30/.34 dB
VSWR	< 1.2	< 1.2	< 1.2	< 1.2
Isolation	> 55 dB	> 55 dB	> 55 dB	> 55 dB
Impedance	50 Ohms	50 Ohms	50 Ohms	50 Ohms

Compact HF Mobile SWR/Wattmeters

Flat Mount 1.8-60 MHz *Mobile* SWR/Wattmeter

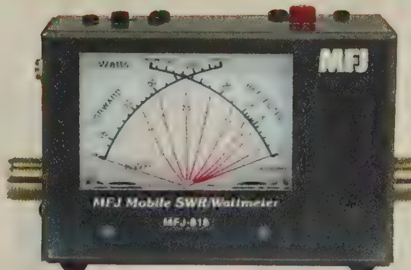




MFJ-819
$159^95
Ship Code A

Just 1⅝" thick -- easily mounts on your dashboard for easy viewing. Flat mount on wall or shelf in your ham shack for best viewing angle. Remote sensor with 25 feet thin, flexible cable lets you place sensor and coax out-of-the-way. Handles full 1500 Watts, 1.8-60 MHz. LED lighted Cross-Needle meter. *Active* electronics lets you read *true* peak or average power in two power ranges. Has "High SWR" LED. Flat-Mount SWR/Wattmeter measures 5Wx3¼H x1⅝D inches; remote sensor is a tiny 3½Wx2¾H x2¾D inches. Use 9V battery or 12 VDC.

Ruggedized flat Mobile/ portable SWR/Wattmeter

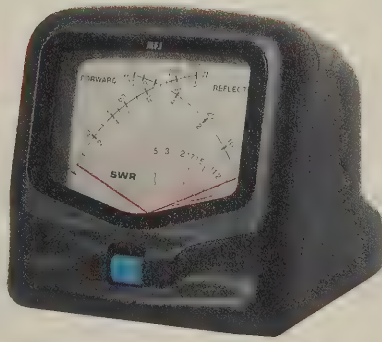


MFJ-818
$79^95
Ship Code A

MFJ's flat, compact SWR/Watt-meter is *plenty rugged* to take the abuse of *brutal* mobile or portable operation. Easily mounts on dash for easy viewing. Flat mount on wall/shelf in shack for best view angle. Meter is fully enclosed in a strong aluminum case with just the scales exposed. Only two small switches slightly protrude so there's little to break.

Simultaneously read SWR/forward/reflected power on this full size 3-inch lighted *Cross-Needle* Meter. Use 12 VDC for meter lamp or plug into cigarette lighter with **MFJ-5510, $9.95**. 30/300 Watt ranges, 1.8-30 MHz, SO-239. Tiny all-metal cabinet has rubber feet. 5Wx3Hx2D inches.

Compact Cross-Needle SWR/Wattmeters



MFJ-822 or
MFJ-842
$59^95
Ship Code A

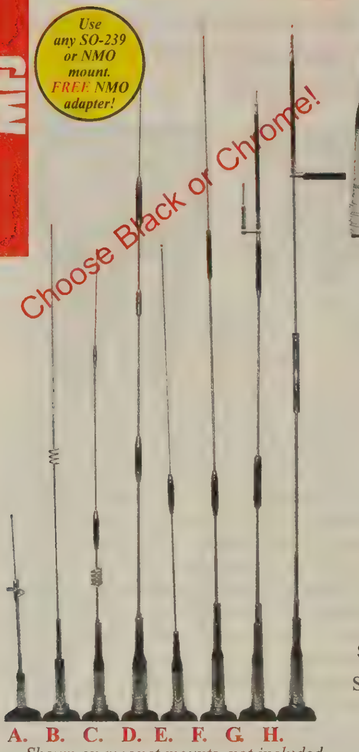
Compact HF/VHF and VHF/UHF SWR/ Wattmeter.

Has huge 3" Cross-needle meter. Read forward/reflected power and SWR simultaneously.

Perfect for mobile or portable operation. Two selectable power ranges, built-in meter light (+12 VDC). SO-239 connectors. 3¼Wx3¼Hx3¼D in.

MFJ-822 covers 1.8-200 MHz, 30 or 300 Watts. MFJ-842 covers 140-525 MHz, 15 or 150 Watts.

MFJ *RuffRider*™ High Gain Mobile Antennas



Shown on magnet mounts, not included.

Most RuffRiders™ come with MFJ's 90 degree "fold-over" feature -- lets you pull into your garage without knocking your antenna over!

MFJ's *RuffRider*™ High Gain multi-banded antenna series is for serious mobile hams demanding highest quality at low prices.

Featuring the finest quality construction using precision machined components. They battle the elements, handle rugged rides and the day-to-day highway abuse.

Each has a PL-259 base mount for quick installation to a heavy duty SO-239 magnet, trunk/hatch, gutter or mirror mount. *Free* NMO adapter is included for use with an NMO mount. MFJ's tri-magnet mount recommended for big antennas.

Choose from several different length and gain antennas . . .

A. ***VHF/UHF RuffRiderJunior™.***

MFJ-1402
29^{95}
Ship Code A

Premium, short 16$^{1}/_{2}$" antenna fits in any garage on any auto. $^{1}/_{4}$ Wave on 2 Meters, $^{1}/_{2}$ Wave, 3 dB gain on 440 MHz. 100 Watts. No fold-over feature for MFJ-1402/B. **MFJ-1402B, $29.95. Black.**

B. ***VHF/UHF RuffRider High Power™.***

MFJ-1412
29^{95}
Ship Code A

Just 40" long handles full *200 Watts*. Great for high power mobile amp. $^{1}/_{2}$ Wave, 3 dB gain on 2 Meters, $^{5}/_{8}$ Wave, 5.5 dB gain on 440 MHz. **MFJ-1412B, $29.95. Black.**

C. ***VHF/UHF RuffRider High Gain™.***

MFJ-1422
34^{95}
Ship Code B

41$^{1}/_{2}$" long antenna gives extra gain with little height increase. 150 Watts. $^{1}/_{2}$ wave, 3.2 dB gain on 2 M, $^{5}/_{8}$ Wave, 5.7 dB, 440 MHz. **MFJ-1422B, $34.95. Black**

D. ***VHF/UHF RuffRider Hyper Gain™.***

MFJ-1432
49^{95}
Ship Code B

This 62$^{1}/_{2}$" brute gives a whopping 5 dB gain on $^{7}/_{8}$ Wave 2-Meters, $^{5}/_{8}$ Wave and a *MONSTER* 7.6 dB gain on 440 MHz. Our highest gain dual band antenna will work rock yours and anyone else listening. Handles 150 Watts. Tri-mag recommended **MFJ-1432B, $49.95. Black.**

E. ***Tri-Band VHF/UHF/6M RuffRider Triple Threat™.***

MFJ-1436
59^{95}
Ship Code B

59 inches of stacked elements with high-Q phasing coils give a whopping 7.2 dB gain on 440 MHz, 4.5 dB on 2 Meters and 2.15 dB on 6 Meters. Handles 150 Watts. *New!* **MFJ-1436B,$59.95. Black.**

F. ***Tri-Band VHF/220/UHF RuffRider Triple ThreatII™.***

MFJ-1434
79^{95}
Ship Code A

Slim 38", similar to MFJ-1436, but 2.15 dB on 2-Meters, 3.5 dB on 220 MHz, and 6 dB gain on 440 MHz. 100 Watts. *New!* **MFJ-1434B, $79.95. Black.**

G. ***VHF/UHF/6M/10M RuffRider QuadBander™.***

MFJ-1438
99^{95}
Ship Code B

52", 7.2 dB - 440 MHz, 4.5 dB - 144 and 2.15 dB on 6. *Go HF!* 150 Watts. **New! MFJ-1438B, $99.95. Black.**

H. ***HF/2M/440 RuffRider™***

MFJ-1456
149^{95}
Ship Code B

Covers 40/20/15/10/6/2 Meters & 440 MHz! Use up to 4 coils at one time. Use tri-magnet. *See* page 65 for more details.

MFJ-844 VHF/UHF SWR Mobile Power Meter

MFJ-844
69^{95}
Ship Code A

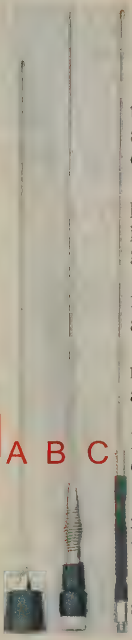
MFJ-844 covers 144 and 440 MHz. Insertion loss is 0.3 dB or lower with 50 Ohm impedance. SO-239 connectors. Tiny size lets you put it just anywhere in your operating position. 3$^{3}/_{4}$Wx3H x1$^{1}/_{4}$D in. Handles 200 Watts and measures SWR and Power in three power ranges: 15W, 60W, and 200W. A multi-colored white, orange, and black meter face makes for easy reading in quick glances.

Extra large, highly visible meter. Die-cast metal, quality connectors for years of use.

MFJ Heavy Duty Balcony Antenna Mount

Use this MFJ-1907 to safely and securely mount an antenna to your balcony in your apartment or condo. Go portable, on your camper or from a tree limb in the woods. Use hamsticks, lightweight verticals, small screwdrivers and lightweight dipoles. Made of high-strength .1" aircraft aluminum. Extends 14 inches out away from guttering or metal roofs. Can be mounted vertically or horizontally. Use HF style (3/8-24 threaded connector) or VHF/UHF (SO-239 connector). 1$^{1}/_{2}$" U-bolts are included.

MFJ 5/8 Wave 2/6 Meter Mobile Antenna



MFJ-1728S/M/T
24^{95}
Ship Code B

MFJ's 5/8 wave on 2 Meters gives the maximum possible theoretical gain of any mobile antenna, no matter how much other antennas might cost.

MFJ-1728 S/M/T is a whopping 53" for a super-radiating performance. Built tough--you'll get years of dependable service.

On 6 Meters, it is a high performance full quarter wave antenna that gives you great *"magic band"* signals used mobile or as a base station antenna.

It's rated at 300 Watts PEP. Low SWR lets your transceiver deliver full power safely.

Now you can pick your style:

A. Order **MFJ-1728M**, for **NMO** type connector.

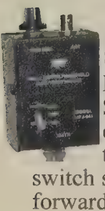
B. MFJ-1728S for **SO-239**.

C. Order **MFJ-1728T** for HF-style **3/8-24** threaded connector.

HT SWR/Power Meters

MFJ-840
29^{95}
Ship Code A

MFJ-840 accurately checks the power output of your 2-Meter HT into a 50-Ohm dummy load. Also checks battery charge. 5 Watts full scale. BNC connector. Compact 2Wx2$^{1}/_{4}$Hx1$^{1}/_{2}$D inches can go with you anywhere.



MFJ-841
49^{95}
Ship Code A

This connects directly *in-line* between your HT and antenna. Reads SWR up to 6:1 and power output to a full 5 watts. A three-position toggle switch selects SWR, SWR set, or forward power. Compact 2Wx2$^{1}/_{4}$Hx1$^{1}/_{2}$D inches.

3/8-24 HF Antenna Adaptors

MFJ-7710, $16.95. PL-259 to 3/8-24 Adaptor.

MFJ-7725, $6.95. 3/8-24 Quick Connect.

MFJ-7735, $11.95. 3/8-24 to Fold over.

MFJ- 7707, $6.95. 3/8-24 to NMO adaptor.

MFJ-7748, $5.95. SO-239 to 3/8-24 Female Adaptor.

MFJ-7714, $4.95. 3/8-24 Chassis Mount with insulating washer.

Vise-Grip Ant Mount

MFJ-351T, $9.95. Vise-grip 3/8-24 antenna connection for quick, anywhere placement. Grip up to 1.25" mast. SO-239 coax connect.

MFJ-7715, $4.95. 3/8-24 to .20 inch hole whip ferrule.

MFJ-7712, $4.95. 3/8-24 to .10 inch hole whip ferrule.

3/8-24 Mount 2M/440 MHz Dual Band Whip Antenna

MFJ-1414 is a tall 58$^{1}/_{2}$ inches. It's a 3/8-24 Stud-Mount Dual Band Whip antenna with 2.15 dB gain on 2-Meters (1/2 wave) and 3.5 dB gain on 440 MHz.

Handles 200 Watts. Sleek, stainless steel, heavy duty construction (no plastic coils to break).

Lets you use just one mount for all of your HF/VHF/UHF antennas.

MFJ-1414
19^{95}
Ship Code C

MFJ Magnet, Mirror & Trunk Lip Mobile Antenna Mounts

MFJ 5" Magnet w/Coax

MFJ-335BS
SO-239

MFJ-335BM
NMO

Each
$15.95
Ship Code B

MFJ-335BT
3/8 - 24
For HF sticks

These 5-inch *super strong* magnet mounts have 17 feet of coaxial line terminated with PL-259 connector. Choose SO-239 (BS) or NMO (BM) for your VHF/UHF antennas or 3/8-24 threaded (BT) for your HF antennas or other type antenna with a 3/8-24 connector. All MFJ magnet mounts are jet-black in color.

Trunk/Hatch Lip Mounts

MFJ-345S
SO-239
$34.95
Ship Code A

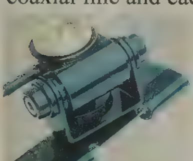
MFJ-345T
3/8x24
$39.95
Ship Code A

MFJ's *RuffRider*™ Mounts feature *extra-wide* four inch lip and large reinforcing tabs on each side safely distributes load over your vehicle's lip. They each can rotate 360 degrees to allow you to put your antenna in every possible configuration.

Two large set screws on each end locks your mount into place. A scratch proof rubber guard protects your vehicle's finish.

Secures large VHF/UHF and medium size HF antennas. Adjustable angles. Perfect for MFJ's large *RuffRider*™ VHF/UHF Antenna series or MFJ's *Hamtenna*™ HF whips.

Has 10 feet of low loss coaxial line and each is terminated with a PL-259 connector. Allen wrenches included. Weather caps for SO-239 models also.

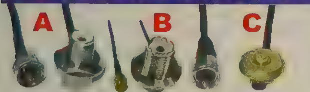

MFJ-345M (NMO)
$39.95
Ship Code A

MFJ-345S, $34.95. Has SO-239 connector.

MFJ-345T, $39.95. Has *HF style* 3/8x24 threaded connector.

MFJ-345M, $39.95. Has NMO connector.

MFJ Hard Mount Coax



$19.95
Ship Code A

For those wanting a permanent antenna position mount, select:

A. MFJ-341S, SO-239 on antenna end and PL-259 for radio end. 17 feet coax.

B. MFJ-341SS, SO-239 on antenna end and SMA male for radio end. 3 feet coax.

C. MFJ-341M, NMO on antenna end and PL-259 for radio end. 17 feet coax.

MFJ Triple Magnet

GOLIATH
ULTIMATE STRENGTH

MFJ-336S
SO-239

MFJ-336M
NMO

MFJ-336T
3/8x24

$34.95 Each Ship Code C

Three super-strong 5-Inch Magnets make up this MFJ *Goliath*™ Tri-Magnet Mount. MFJ-336 has three super strong 5-inch magnets bolted to a 1/4 inch triangular mount. 17 feet of coaxial line is terminated with a PL-259 connector. **Caution:** once on, it's difficult to get it back off! Select SO-239, NMO or 3/8x24 threaded.

MFJ Deluxe Lip Mounts

MFJ-348S
SO-239
$39.95
Ship Code A

These *Deluxe* Trunk/Hatchback Lip Mounts are heavy-duty -- each has a wide 3.3 inch lip and reinforcing tabs on each side to safely distribute the antenna load.

The MFJ-348 series have a 360 degree rotation and a 180 degree left-to-right flexibility. A convenient thumb/finger *lay-over* knob lets you lay down your antenna to clear garages and low overhangs -- several position detents in either direction.

MFJ-348T
3/8x24
$42.95
Ship Code A

Scratch-proof rubber guard protects your vehicles finish. E

Each has 17 feet of coaxial line terminated with a PL-259 connector.

**The MFJ-348 series will secures large VHF/UHF antennas and medium size HF antennas including HF sticks.

MFJ-348M
NMO
$42.95
Ship Code A

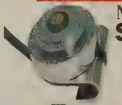
Allen wrenches included. Weather caps for SO-239 also.

MFJ-348S, $39.95. SO-239 connector.

MFJ-348T, $42.95. HF 3/8-24 threaded connector.

MFJ-348M, $42.95. NMO connector.

Mini Trunk Lip Mounts



MFJ-346M/T
$24.95
Ship Code A

NMO or **3/8-24** mini lip mounts are stainless steel, include 17 feet coaxial cable terminated with PL-259 connector. Rubber cushion protects surface from scratches. Order **MFJ-346M** (NMO) or **MFJ-346T** (3/8-24).

GumDrop™ 3/8-24 Mount

MFJ-343
$9.95
Ship Code A

Tough 3/8-24 antenna hard mount for permanent HF antenna installation. Durable plastic, rubber seal protects vehicle. Drill small hole for SO-239 bottom.

MFJ 3-Inch Magnet Mount

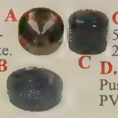
MFJ-333BS
SO-239

Each
$11.95
Ship Code A

MFJ-333BM
NMO

3-inch black magnet mounts have 17' coax terminated with PL-259. Choose SO-239 (**BS**) or NMO (**BM**). Lightweight antennas.

Connector Protective Caps



A. MFJ-7720, $1.49. Screw-on SO-239,brass chrome plate.

B. MFJ-7756, $1.99. Screw-on NMO, PVC, black.

C. MFJ-7758, $0.99. 5-pack,push-on SO-239/N, vinyl, black.

D. MFJ-7750, $0.99. Push-on N/SO-239, black PVC, retaining strap.

2½" *HT Antenna* Mag Mounts

Get your HT antenna outside of the vehicle!

MFJ-332S, $14.95. HT Antenna Magnet Mount, SMA on each end. 12' flex RG-58AU coax.

MFJ-332B, $14.95. Like MFJ-332S but has BNC.

Mirror/Rack/Pipe Mounts

MFJ-342T
$9.95
Ship Code A

MFJ-342T is a 3/8-24 threaded HF antenna pipe/mirror mount that holds MFJ's HF mobile *HamTennas*™ or any 3/8" style whips steady on your automobile's mirror, luggage rack or other pipe. Hard aluminum clamps can mount to a ¼ or ½" pipe. SO-239 connector w/lock washer feeds coaxial line underneath 3/8 inch connector. Coax not included with this unit.

MFJ-342S is similar to MFJ-342T, but has SO-239 connector and includes 17 feet of coaxial line terminated in a PL-259.

MFJ-342S
$14.95
Ship Code A

MFJ-344 is similar to MFJ-342T, but is a vertical mount for 3/8-24 threaded HF antennas.

MFJ-344
$9.95
Ship Code A

Deluxe Mirror/Pipe Mount

MFJ-340S/M
SO-239
$34.95
Ship Code A

MFJ-340 Deluxe *RuffRider*™ Mirror/ Pipe Mount attaches on a support rod of your mirror, luggage rack or spare tire carrier of your vehicle (up to 5/8" in dia.).

Secures large VHF/ UHF and medium size HF antennas with a PL-259 connector. Two axis of rotation position your antenna to any desired angle.

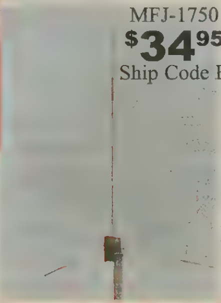
Serrated swivel joint locks secure with huge 3/8" set screw. A convenient thumb/finger turn knob. 10 foot coax with PL-259.

Has 17 feet of coaxial line is terminated with a PL-259 connector, Allen wrenches included. Weather caps for SO-239 model.

MFJ-340S has SO-239 connector.
MFJ-340M has NMO connector.

MFJ 5/8 Wave 2M Ground Plane

For an incredible $34.95, you get a 300 Watt 5/8 Wave ground plane 2 Meter home station antenna. Other 5/8 wave ground planes can't work any better -- no matter how much they cost . . .



MFJ-1750
$34.95
Ship Code B

Look at all you get at an incredible $34.95!

You get a 300 Watt 5/8 wave ground plane base antenna for 2 Meters that gives you the maximum possible calculated gain of any single element antenna.

Other 5/8 waves *can't* work any better -- no matter how much they cost.

You get *shunt fed matching network* for lowest possible SWR over entire 2 Meter band. Plus, it bleeds off unwanted static.

You get MFJ's *RapidTuneRadiator*™ for quick accurate tuning.

You get a ceramic insulator for low RF loss. Result? Maximum radiated power is achieved.

Easy installation to any 1 to 1½ inch mast, (not included) with a single U-bolt (included).

You get strong lightweight aluminum construction protected by MFJ's *No MatterWhat*™ limited warranty.

You get MFJ's famous *No Matter What*™ one year limited warranty.

Just $34.95 gets you the most incredible value in a 5/8 wave base station ground plane. Remember, other 5/8 wave ground planes can't work any better.

MFJ-1750, $34.95. 2 Meter 5/8 Wave.
MFJ-1752, $34.95. 220 MHz 5/8 Wave.

Dual Band 144/440 Ground Plane

MFJ-1754
$39.95
Ship Code A

MFJ's dual band 144/440 ground plane antenna is small, lightweight and super easy to mount to any 1 to 1½ inch mast, (not included), with a single included U-bolt -- you'll have it up and operating anywhere in just minutes. Great for backpacking.

Mount it inside to get on-the-air quickly. You get extra long range on 440 MHz with a high gain halfwave over quarter wave antenna and solid 1/4 wave performance on 2 Meters.

Ground plane is sloped to give low SWR across both bands and to minimize feedline radiation. This gives you more useful radiated power, reduced TVI and noise pickup by the coax shield.

Improved 1/4 Wave Ground Plane

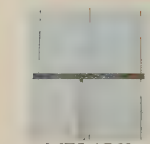
MFJ-1740
$29.95
Ship Code A

For $29.95, you get an *improved* 300 Watt 1/4 Wave Ground Plane for 2 Meters that'll bring up repeaters as well as or better than any 1/4 wave ground plane -- even if it costs twice as much.

The *improved* MFJ 1/4 wave ground plane minimizes feedline radiation for more useful radiated power, reduced TVI and noise pickup by the coax shield.

You get MFJ's *Fast-Tune-Radiator*™ that makes tuning to your favorite part of the band a snap. U-bolt and mounting hardware included. Easy to install on 1½" mast. Can be cut for 220 or 440 MHz. A cutting chart is included.

Portable 3-element 2-Meter beam



MFJ-1763
$54.95
Ship Code B

Unique design lets you set it up or take it down in seconds! Elements simply screw into the boom. Easy to store and sturdy enough to use as your base antenna.

Center mount it and use it vertically on FM or horizontally for SSB. By rotating it you can minimize QRM. You can also mount it vertically or horizontally on the leg of a tower . . . great for Packet and *PacketCluster*™.

Compact 2¾ foot boom gives you calculated gain within 1 dB of a four element Yagi with a boom nearly twice as long. Extra thick elements maintain high gain and directivity over virtually the whole 2-Meter band. Ferrite choke balun gives excellent feedline decoupling. Coax coupling is further reduced by mounting the SO-239 connector behind the reflector.

Weighs just 2 lbs. Boom is 30½x1¾x1¼ in. Mounts easily to mast or tower leg with single included U-bolt. Mast not included.

Stacked 2-Meter 5/8 Wave

MFJ-1764
$59.95
Ship Code B

MFJ's stacked 5/8 wave radiators give you more than twice the omni-directional gain of a single 5/8 wave radiator! Wide 10 MHz 2:1 SWR bandwidth . . . excellent ferrite choke balun feedline decoupling . . . shunt choke for bleeding off unwanted static . . . strong lightweight aluminum. Works as an excellent 6 Meter full half-wave centerfed antenna. Great for MFJ's 6 Meter radios! Mounts vertically for FM/packet or horizontally for SSB. U-bolt (included) to any 1 to 1½ inch mast or tower leg. **MFJ-1766, $124.95.** Gives you *four* times the gain of a single 5/8 wave. 2 MFJ-1764 antennas, phasing cables. Double gain on 6M.
MFJ-1765, $39.95. Includes phasing cables for two MFJ-1764s.

MFJ *Dual Band* 144/440 MHz Yagi

MFJ-1760
$89.95
Ship Code B

MFJ-1760 gives a whopping 8 dBi gain on 2-Meters and 6 dBi gain on 440 MHz. Has 3-elements on two meters and 5-elements on 440 MHz. Requires only one feedline for *true* dual band performance. Point in direction of your QSO for more direction of your output power. This reduces interference and increases signal strength. Has 17 dB front-to-back ratio on 2-Meters and 10 dB on 440 MHz. Handles 500 Watts. The longest element is 40.5 inches and the boom is 45 inches. Mast diameter is 1.5 inches. Weighs just 2 pounds.

MFJ 7 element 144/440 MHz Yagi

MFJ-1768
$99.95
Ship Code C

Get 7 elements on 440 MHz and 4 elements on 2 Meters.

Exclusive dual band balanced feed with *FerriteChoke*™ decoupling prevents pattern skewing-- gives low SWR. 1/4 inch diameter driver elements give wide bandwidth. *National Bureau of Standards* design is optimized for maximum gain, high front-to-back, clean symmetrical pattern. Mounts vertically for FM/Packet or horizontally for SSB with single included U-bolt on 1 to 1½ inch mast or tower leg.

Includes a 5 foot, 1⅛ inch diameter boom, antenna weighs in at 2 pounds. Elements are electrically isolated from boom.

MFJ 2-Meter *wide-band* Yagi

Covers the entire 2-Meter Band from 144-148 MHz

MFJ-1852
$69.95
Ship Code C

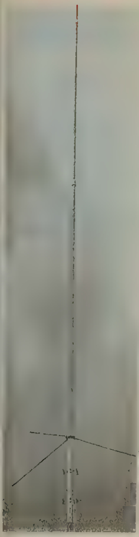
Our versatile *new* six-element MFJ-1852 2-Meter Band Spanner Yagi delivers 10-dBi gain, 20-dB front-to-back ratio, and covers 144 to 148 MHz plus MARS with *rock bottom* SWR. Best of all, there's no power-robbing matching network or finicky tuning adjustments because it's *CAD optimized* for full-band operation using the latest advanced algorithms!

Whether you're working weak-signal CW, SSB, digital, satellites, or FM, you'll appreciate the MFJ-1852's compact small size, light weight (3.5 lbs.), and stealthy good looks. You'll *love the way it performs*, with consistently low reflected power, high directivity, and superb rejection of unwanted noise/interference.

MFJ-1852 makes a great antenna for the home QTH, but it is also perfect for vacation spots, emergency shelters, field day camp, and rover excursions. The boom is 3' long and the longest element is 41", so it's easy to pack away on your next trip. Handles 600 Watts. Has SO-239 feedpoint. If serious about staying in touch, why not pick one up to cover all of your "bases".

It's the perfect plug-and-play solution!

MFJ *Pulsar*™ 6M/VHF/UHF/1.2 GHz Base Antennas



MFJ's Pulsar™ Base/Repeater Antenna series is *built to last!* Heavy duty fiberglass radomes and overlapping shells add strength and stability. Stainless steel hardware and waterproof joints eliminate moisture /pollution. *Super high wind loading.*

MFJ-1526 - $149.95. *Pulsar ULTRA MightyGain™.* Dual Band 144/440 MHz Base/Repeater Antenna. Our highest gain *Pulsar™* antenna. Great 8.3 dB on 2 Meters and 11.7 dB on 440 MHz. 17 ft., shipped in two sections. SO-239 Connector, handles 200W.

MFJ-1526N - $149.95. Same as MFJ-1526, has **"N" connector**.

MFJ-1524 - $119.95. *Pulsar Hyper MightyGain™.* Dual Band 144/440 MHz Base/Repeater Antenna. You get high gain with little weight. Just 10 feet tall. Features 6.5 dB gain on 2 Meters and 9 dB gain on 440 MHz. Shipped in two sections. SO-239 connector, handles 200 Watts. *All are ship code C.*

New! **MFJ-1521, $59.95.** *Pulsar Mini* Limited Space VHF/UHF Antenna. Just 4.5 feet tall but gives BIG gain, 3dB on 2M and 5.5dB on 440 MHz. Perfect for balconies, attics, other limited spaces.

MFJ-1522 - $69.95. *Pulsar Economy Priced Dual Bander™* Base/Repeater Antenna. 5.5 ft. tall. 4.5 dB gain on 2 Meters, 7.2 dB on 440 MHz. Great for antenna restricted households and apartments. Easy to hide on Balcony or backyard. SO-239 Connector. Handles 200 W.

MFJ-1516 - $99.95. *Pulsar VHF Base Station™.* The ultimate 2 Meter Base/Repeater Station Antenna! Great 7.8 dB gain is perfect for dedicated repeater or home use. 15ft. shipped in three sections. SO-239 Connector. Handles 200 Watts.

MFJ-1536 - $119.95. *Pulsar VHF TriBander™.* The Perfect Base/Repeater Antenna for VHF. Covers 2 Meters, 6 Meters, and 440 MHz. You get 2 dB on 6 Meters, 6 dB gain on 2 Meters, and 8 dB gain on 440 MHz. Only 8.2 ft., shipped in two sections. SO-239 Connector. Handles 200Watts.

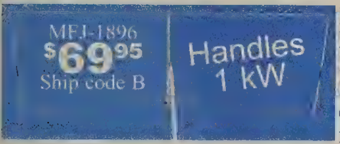
Quadbander covers 6 Meters and 144/220/440 MHz

MFJ-1538 - $119.95. *Pulsar VHF Quad-Bander™.* Like MFJ-1536, but covers 6M/144/220/440 MHz.

MFJ-1532N - $99.95. *Pulsar VHF/UHF and 1.2 GHz TriBander™* Base /Repeater Antenna. VHF operation plus exciting 1.2 GHz!! 4.5 dB gain on 2 Meters, 8.3 on 440 MHz, and a whopping 11.7 dB 1.2 GHz. 5½ ft. Type "N" connector. Handles 200 Watts.

MFJ 6-Meter Antennas

MFJ 6-Meter Moxon Ant



MFJ's 6-Meter Moxon for limited space features low SWR and a *broad cardioid pattern* with **5.5-dBi forward gain**, high front-to-back ratio. Element span is a compact 7 feet on a 34" boom with **turning radius of under 4'.** It's winter-storm tough but extremely lightweight, under 5 lbs. Feedpoint is an SO-239 pigtail. It's the perfect choice for getting on the *"magic" band* as the sun spot count rises and legendary band openings return. Also, it's your best choice to take on those exciting mountain-topping and *rover* adventures!

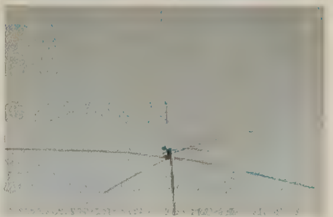
MFJ 6-Meter Yagi

MFJ-1762
$99.95
Ship code C

This super lightweight 6 Meter Yagi will quadruple your effective radiated power over a 1/2 wave dipole. MFJ-1762 has a 6 foot boom and three elements. Weighs just 2 pounds. Handles 300 Watts PEP SSB. Mounts vertically or horizontally. Gives a great front-to-back ratio. It's the perfect match for your MFJ-9406 6-Meter *Adventure Radio*™.

MFJ 6-Meter Vertical

MFJ-1756
$99.95
Ship code C



MFJ-1756 is a omni-directional low-angle vertical radiator that lets you work plenty of DX in all directions, even with low power. 55" strong aluminum radiator and four 60 inch radials. A rugged *adjustable* air-insulated matching stub lets you obtain a near perfect 1:1 SWR. Mounts to any 1 to 11/2 inch mast with a single U-bolt clamp (included). Lightweight and truly portable.

MFJ 10-15 Meter Antennas

MFJ 10 & 15 Meter Moxon Antennas

MFJ-1890
$84.95
Ship code B
Handles 1kW!
MFJ-1895
$104.95
Ship code B

This rugged *close-spaced* 2-element Yagi has a driven element and reflector with the tips folded toward each other to minimize turning radius. **MFJ-1890 for ten meters spans a mere 12' on a lightweight 50" boom.** Weighs just 8 lbs., yet delivers an amazingly clean *cardioid pattern* with 3.3 dBd forward gain and 30 dB of *interference killing* front-to-back rejection! Mount anywhere using lightweight TV antenna hardware. SO-239 pigtail feedpoint. **MFJ-1895 for fifteen meters spans sixteen feet on a lightweight 67" boom.** It also delivers 3.3 dBd forward gain. Weighs ten pounds.

MFJ 10-Meter Mobile

MFJ-1410T super-performing 10-Meter mobile gives you plenty of punch and gain for *rough-shot mobile operation.* Explore the exciting world of DX from your auto with this 53" stainless-steel radiator. Low SWR, handles 300 Watts PEP SSB. HF style 3/8-24 threaded connector.

MFJ-1410T
$29.95
Ship code B

Work the World from your Backyard, this 10M Vertical is all you need!

MFJ-1790
$69.95
Ship Code B

Extremely lightweight for portable use . . . Low Angle Radiation for outstanding DX Vertical/Horizontal Mounting Bracket . . .

Ten Meters is Wide Open! This 11-foot vertical lets you work *all the DX you can handle!* Features lightweight 11-foot radiator and two 6-foot radials both made of aluminum. Weighs less than 3 lbs., easy to put up/take down for DXpeditions or stealth.

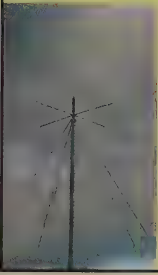
MFJ-1790 has a super low angle of radiation to focus your signal *where you want it* -- reduces QRM/Noise and gives great DX!

Included mast bracket can be turned horizontal or vertical -- lets you attach it to an existing mast or pole with ease!

MFJ-1790 covers entire 10-meter band (28.0-29.7 MHz), 300 Watts PEP SSB.

MFJ-9410X, $289.95. Ten Meter Adventure Radio with microphone.

Scanner-Discone Antenna receives 25-1300 MHz, transmits 50-1300 MHz



MFJ-1868
$69.95
Ship code C

Ultra wide-band antenna receives 25-1300 MHz. Perfect for scanners. Transmit 50-1300 MHz. Handles 200 Watts. Ideal for 6/2/1¼ Meters, 70/33/23 CM ham bands. Excellent for testing various transmitters on single coax. Includes SO-239 connector, 50 feet coax, stainless steel elements and mounting hardware.

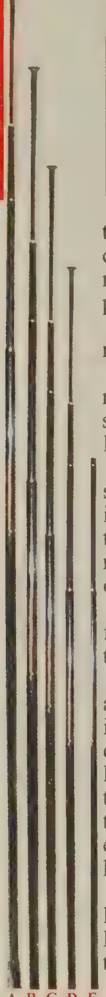
MFJ-1866
$49.95
Ship code C

MFJ-1866 is like MFJ-1868, but only transmits from 144 to 1290 MHz.

Coax and hardware is not included.

MFJ Ultra-Strong *Stainless Steel* Telescopic Antennas

5 models . . . 17, 12, 10, 8 or 4.5 ft. Extended



The tough, rigid base makes the difference, extra durable!
7/8 Diameter x 2³/₄ long base
Solid Chrome-plated brass with 3/8-24 threaded stubs

MFJ's premium stainless steel telescopic whips are the perfect choice for building collapsible multi-band dipoles, mobiles, portable and base antennas.

They are great for traveling, mini DXpeditions, vacations, etc.

They can also be used to replace your current automatic screwdriver whip for a more highly efficient fixed mobile operation.

Rigidly collared at the base, stronger than plated brass, and impervious to rust and corrosion, they stand up to the forces of nature and the rigors of portable operation where others might fail.

With four models to choose from, select the ideal length for the frequencies you need to cover.

The base of each whip features a standard 3/8-24 threaded mounting stud for installation on mobile or fixed antenna mounts like MFJ's lip mounts, magnet mounts, tripods and dipole mounts. The tough, rigid base makes the difference for an extra-durable and long-lasting antenna system.

For 1/4 Wave verticals, use MFJ-342T or MFJ-344 mounts. For dipoles, use two whips with the MFJ-347 dipole mount.

See pg. 61 for 3/8-24 mounts.

A. MFJ-1979, $59⁹⁵

17-foot stainless steel telescopic whip is manufactured with a solid 7/8 inch diameter by 2³/₈ inch long chrome-plated brass base.

5/8 inch diameter bottom section and a .10 inch top section with a 5/16 inch diameter round ball tip.

Telescopes for full 1/4 Wave operation on 20 Meters without loading coil and 30/40/60/80/160 Meters with loading coil.

Measures 17 feet fully extended. 10 sections. Collapses to 27 inches.

B. MFJ-1977, $44⁹⁵

12-foot stainless steel telescopic whip. Replaces screwdriver antenna whip for highly efficient fixed operation. Telescopes to 1/4 Wave, covers FM/12/15 M.

Use base loading coil to cover lower bands. Solid 3/4 inch diameter by 2³/₈ inch long chrome plated brass base. 5/8 inch bottom section, .10 inch top section with 5/16 inch diameter round ball tip.

12-feet fully extended. Seven sections. Collapses to 26 inches.

C. MFJ-1976, $39⁹⁵

10-foot stainless steel telescopic whip. 10 ft. fully extended, this whip can cover 10M through FM band without loading and lower bands with a loading coil.

Solid 3/4" dia. by 2³/₈" long chrome plated brass base. 7/16 inch bottom, .10" top section with 5/16" diameter round ball tip.

10 feet fully extended. 7 sections. Collapses to 20" for easy travelability.

D. MFJ-1974, $34⁹⁵

8-foot stainless steel telescopic whip. Fully extended at 8.2 feet, this whip covers 10 Meters thru FM band without loading, lower bands with coil.

Solid 3/4 inch diameter by 2³/₈ inch long chrome plated brass base. 7/16 inch bottom section, .10" top section with 5/16 inch diameter round ball tip.

8.2 feet fully extended. 5 sections. Collapses to 24" for easy travelability.

E. MFJ-1972, $14⁹⁵

4.5-foot stainless steel telescopic whip. Great for mobile or base/fixed operation. Covers 6 Meters, 2 Meters, Air band and FM band. 1/2 inch hex base with 3/8-24 threaded stud. 9/32" bottom section. 4.5 feet fully extended. 3 sections. Collapses to 22 inches.

MFJ-1963, $9.95
6-foot SuperStik™

Stainless steel telescopic whip. Great length for building portable antenna projects -- use it as a tuning "stinger" on a larger vertical, a top section for a center-loaded or base-loaded portable QRP antenna, or use two for a "trick-stick" style dipole. Weighs just 1.2 oz. 6 foot fully extended, 14 inches collapsed. 6 sections, 9/32" bottom, 7/64" top. Standard 10-32 stub mount.

MFJ-7749, $2.95.
10-32 to 3/8-24 stub adaptor.

stainless steel antenna whips

Solid stainless steel 108 and 72 inch whips with corona discharge caps.

Super durable whips for mobile screwdriver style antennas. Both have HF style 3/8x24 thread stud connectors.

A. MFJ-1966, $26.95. 108 inches.
B. MFJ-1964, $21.95. 72 inches.

HF Portable/Mobile Manual Screwdriver Antennas

MFJ's Manually Tuned Screwdriver Antennas let you operate all bands between 80 and 6 Meters continuously including all WARC bands and the new 60 Meter bands (*depends on model). It far outperforms other HF compact antennas!

MFJ's new *Manually Tuned Screwdriver Antennas* let you operate *all bands* 80-6 M *continuously* including all WARC bands and new 60 Meter bands (depends on model).

An extra long 10 foot (19" collapsed) whip lets you really get out and work rare DX! 4½ foot (23" collapsed) stainless steel whip is included for mobile. Each unit has a highly efficient loading inductor.

For highest Q, the coil is wound with heavy gauge wire with wide spaced turns on a mostly-air core. A tuning sleeve electrically removes turns to eliminate detrimental self-resonance effects. The tuning sleeve is on the low impedance side of the coil to minimize power robbing and detuning stray or hand capacitance. Frequency stays put after you tune it. A separate movable sleeve adjusts frequency. A nylon-tipped thumb-screw locks sleeve. Wing nut lets you connect a matching capacitor or inductor for 1:1 SWR.

Use 3/8x24 mount. 200Watts PEP. Add coax, connect ground/counterpoise.

Portable Manual Screwdriver Antennas

MFJ-1661 covers 40-2M with 10 foot whip. Covers 6-20 Meters with 4 ½ foot whip. 12 inches long by 2 inches in diameter. Weighs one pound.

MFJ-1661
$139⁹⁵
Ship Code C

PortableVersions
Uses longer 10 ft. whip for full frequency coverage.

MFJ-1664
$169⁹⁵
Ship Code C

MFJ-1664 covers 80-6M with 10 foot whip. Covers 6-40 Meters 4½ ft. whip. 24" long by 2 inches in diameter. Weighs just 1.8 pounds.

MFJ-22, $4.95.
Shunt matching coil with solder lugs.
For use at base of mobile/screwdriver antennas with high SWR.

Mobile Manual Screwdrivers

MFJ-1662
$149⁹⁵
Ship Code C

MFJ-1662 covers 40-2M with 4½ foot *mobile* or 10 foot *fixed operation* telescoping whip. Continuously adjustable loading coil is 15 inches long by 2 inches in diameter and weighs 1.3 lbs.

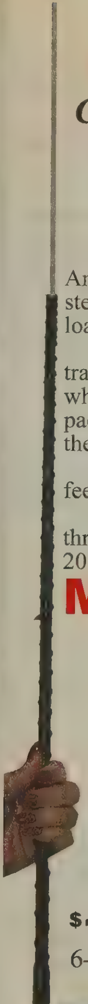
Mobile Versions
Get full frequency coverage with short 4.5 ft. whip.

MFJ-1668 covers 80-6M with 4½ foot *mobile* or 10 foot *fixed operation* telescoping whip. Continuously adjustable loading coil is 36 inches long by 2 inches in diameter and weighs 2.6 pounds.

MFJ-1668
$179⁹⁵
Ship Code D

MFJ HF *Hi-efficiency* Mobile

Continuous Wide Band Coverage: 40-2 or 20-2 Meters



MFJ-1652	MFJ-1654
$79.95	$89.95
20-2 Meters	*40-2 Meters*
Ship Code B	Ship Code B

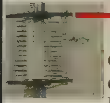
This excellent HF Hi-Q Mobile Antenna consists of an 8 foot stainless steel radiator and a Hi-Q air-wound loading coil. Handles 1 kW PEP SSB.

You'll get outstanding results on both transmit and receive. Stainless steel whip telescopes from 2-8 feet. Easily pack it away when parked to prevent theft or vandalism.

You can use a longer whip, up to 17 feet for stationary operation. See pg. 64.

It is easily adjustable for 40 Meters through 2 Meters with the MFJ-1654 or 20 Meters through 2 Meters with the MFJ-1652. Simply tap a different coil area to change the bands quickly.

It is super-easy-to-install, both pieces screw together and into a 3/8-24 threaded base. Use any standard 3/8-24 threaded mount in lip, trunk, magnet or pipe types. *See page 61* MFJ mounts.



MFJ-65, $59.95. Hi-Q air-wound loading coil only for 20-2 Meters, as used on MFJ-1652. Measures 2 inches diameter by 3" length.

MFJ-67, $69.95. Hi-Q air-wound loading coil only for 40-2 Meters, as used on MFJ-1654. 2 inches diameter by 6 inches length.

MFJ *10-band* HF/VHF *Mobile* Antenna

MFJ-1699S/T
$69.95
Ship Code C

Operate 80, 40, 30, 20, 17, 15, 12, 10 Meters HF mobile and 6 and 2 Meters VHF with just one amazing antenna!

MFJ-1699 features low SWR and 200 Watts power handling for a super-performing mobile HF/VHF antenna.

Changing bands is super-easy -- just change the tap on the *"wander-lead"* to the next band you want to explore. Maximum height is 65".

The PL-259 or 3/8-24 connector makes it easy to mount on any type of lip, trunk, magnet or pipe type mount. *See page 61* for MFJ mounts. Easily collapsible for storage.

Order **MFJ-1699S** with **PL-259**.
Order **MFJ-1699T** with **3/8-24** stub.

MFJ HF Mobile *HamTenna*™ Whips

Your Choice:
MFJ-1675T - 75 Meters
MFJ-1660T - 60 Meters
MFJ-1640T - 40 Meters
MFJ-1630T - 30 Meters
MFJ-1620T - 20 Meters
MFJ-1617T - 17 Meters
MFJ-1615T - 15 Meters
MFJ-1612T - 12 Meters
MFJ-1610T - 10 Meters
MFJ-1606T - 6 Meters

$14.95 Each	$19.95 Each
6-40 Meters	60-75 M

Ship Code B

Each is ruggedly constructed. A heavy duty 4', 3/8 inch diameter fiberglass rod; a nearly indestructible .125 inch diameter PH-17-7 stainless steel whip and chrome plated brass fittings will give you years of service. It's sleek, low profile construction has low wind loading and its semi-rigid fiberglass eliminates the need for springs or guys.

Black anti-static jacket protects the loading coil and blends with any vehicle. Stainless steel whip is adjustable for lowest SWR. Push it down to park in the garage or fully extend it for maximum efficiency during mobile operation.

Includes allen wrench and complete tuning and matching instructions. MFJ-16XXT *Hamtenna™ Whips* handle 250 Watts PEP. Whips are about 7 feet fully extended, and collapse to about 4 feet for easy storage.

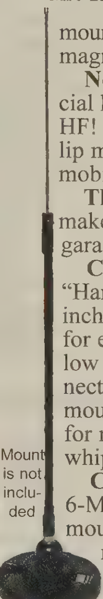
Simply screws into any 3/8 x 24 female mount for quick band-changing.

Short Mobile HF whips

Only 25-36"!

Your Choice:
MFJ-2375T - 75 Meters
MFJ-2360T - 60 Meters
MFJ-2340T - 40 Meters
MFJ-2330T - 30 Meters
MFJ-2320T - 20 Meters
MFJ-2317T - 17 Meters
MFJ-2315T - 15 Meters
MFJ-2312T - 12 Meters
MFJ-2310T - 10 Meters
MFJ-2306T - 6 Meters

$19.95 Each
Ship Code B


Mount is not included

MFJ "Short" HF Mobile Whip Antennas are designed to let you mount an HF antenna with just a 5-inch magnet mount.

No need to drill holes or make special hard mounts on your car to get on HF! Put on a magnet mount or trunk lip mount and you are ready to go HF mobile!

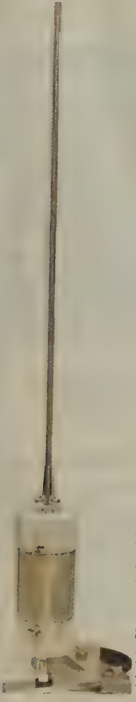
These are super low profile and makes it easy to go in and out of your garage.

Constructed like the MFJ "HamTenna" series but stand only 36 inches tall. Collapsible to 25 inches for easy storage. Thin, lightweight with low wind resistance. Uses 3/8-24 connector on a 5-inch magnet or trunk lip mount. Adjustable stainless-steel whip for minimum SWR. Short, mobile HF whips handle 250 Watts PEP.

Choose any band 75-Meters through 6-Meters. Recommended 5" magnet mount, MFJ-335BT, $21.95. Trunk lip mount, MFJ-345T, $39.95 or the MFJ-348T, $42.95. Other mounts available on page 61.

HF mini-Bugcatcher

MFJ-1624
$89.95
Ship Code C



Become an *"HF Mobileer"* almost instantly with almost no effort! Have tons of fun rag-chewing and DXing on the HF bands. Turn boring drives into fun-filled ham adventures.

It only takes minutes to attach a trunk lip mount (MFJ-345T, $39.95), mirror or luggage mount (MFJ-342, $9.95) or tri-magnet mount (MFJ-336T, $34.95).

Screw in your MFJ-1624 mini bugcatcher HF mobile antenna.

Throw your rig into your car, plug it in the cigarette lighter and turn the power down to 20 Watts or so (to avoid overloading your cigarette lighter; handles 300 Watts PEP).

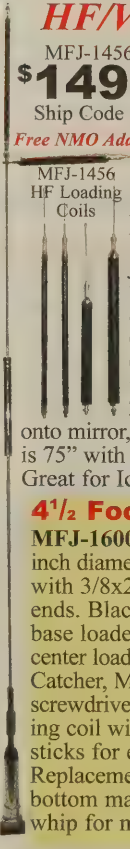
Operate HF mobile and enjoy DXing!

Bugcatcher design uses large highly-efficient air-wound inductor --it will far out perform other compact HF mobile antennas.

Exclusive *built-in* inductive matching network keeps SWR low. 5½ foot whip collapses to 2½ feet for easy storage and garages. Base loaded for minimum wind load and stress. Change bands by moving "wander lead". 3/8 by 24 inch mount.

HF/VHF/UHF Mobile

MFJ-1456
$149.95
Ship Code C
Free NMO Adapter!


MFJ-1456 HF Loading Coils

This new mobile antenna lets you operate all of your favorite HF/VHF/UHF bands as a base station antenna or as a mobile. Covers 40/20/15/10/6/2 Meters/440 MHz with automatic bandswitching! Now you can DX and rag-chew just like the big boys with their fancy screwdriver antennas at almost three times less the cost! Use 1 or up to 4 loading coils. Adjustable whip for tuning. Handles 100 Watts. SO-239 connector quickly screws onto mirror, luggage or tri-magnet. Antenna is 75" with tallest coil mounted vertically. Great for Icom-706! Requires Tri-Mag.

4½ Foot Extender Mast→

MFJ-1600T, $19.95. 4½ foot long, 3/8 inch diameter fiberglass/copper conductor with 3/8x24 male and female mounts on ends. Black anti-static jacket. Convert base loaded antennas to highly efficient center loaded antennas. Use MFJ Bug Catcher, MFJ-2620/2640T, MFJ manual screwdriver antenna, *Hustler* or any loading coil with 3/8x24 threads. Extend ham sticks for efficient fixed station antennas. Replacement for broken or bent Hustler bottom mast section. Add telescoping whip for multi-band vertical.

20/40M 4½' base-loaded Telescopic Mobile whips

MFJ-2620T
(20 Meters)
$29.95
MFJ-2640T
(40 Meters)

Efficient, *base-loaded* 4½ foot HF Whip Antenna is *thin, sleek, and low profile* with very low wind resistance. Lightweight. A 3/8x24 trunk lip or 5-inch magnet mount holds it tight and secure. Handles 125 Watts. *Enjoy your road trip on HF!*

Whip collapses to 22 inches for easy parking or storage in trunk. Easy-on, easy-off 3/8x24 stud. Use as center loaded antenna with bottom mast to improve efficiency.

TarheelAntennas

Without a doubt . . . the best built, best looking, best performing screwdriver antennas in the world!

Screwdriver Antennas and Controllers

TH-100A-HP . . . 3.4-28 MHz . . . 1.5 KW PEP . . . Pittman 12V Commercial Motor . . .

TH-100AHP
$399.95
3.4 to 28 MHz
Ship Code D

TH-100A-HP provides continuous coverage from 3.4 to 28 MHz with the 6' whip.

This is, without a doubt, the *best built, best looking, best performing and highest power motorized antenna* for its size and design on the market.

Pre-installed sensors lets you add one of the auto controllers below.

All CNC machined antenna components are either aircraft aluminum or stainless steel and blue-printed -- *(you can take 100 antennas apart, mix them up and then reassemble them and they will all work the same!).*

Get the Package Deal!
TH-100A-HPKG . . . $529.95
Includes 100A-HP antenna, 6' whip, MT-1 bracket with whip quick-twist disconnect, 21' RG8X coax, seal, 20' control cable, manual switch, ferrite decoupling core, matching coil, fuseholder/fuse, 3/8-24-1¼ stud and silicone dielectric compound.

Our coil form is 2" diameter and made of fiberglass. Other antenna builders know fiberglass is better but they choose not to use it because of expense and difficulty in machining.

We use 14 gauge wire for high power capability wound at eight turns an inch for maximum efficiency. The decoupler is CNC machined for tight tolerances with custom fingerstock designed to contact three turns of coil all the time with over 25 pounds of combined contact pressure. You can run up to 1.5 kW PEP *trouble-free*.

TH-100A-HP comes with the *Pittman 12 Volt commercial grade* gear motor for the best performance. The motor is very durable and extremely quiet while receive tuning.

TH-100A-HP has a *Lexan™ Weather Shield* -- this is the same stuff used on racecar windshields and even used to make bulletproof windows. It also uses the *Powder Coat Paint System* -- And folks this is not spray paint in a can. You get a finish that looks as glossy and will last as long as the paint on a new vehicle!

That's just some of the effort that goes into a Tarheel. You won't be disappointed -- **we GUARANTEE it!**

TH-MT-1, $119. Stainless steel ounting bracket kit includes: bracket with SO-239 and three U-bolt sets.

ANTENNA SPECIFICATIONS	
Lower Mast Length	3 feet
Whip Length	6 feet
Freq.coverage w/6' whip	3.4-28 MHz
Power Rating	1.5 kW PEP
Typical SWR	1.5:1 or less
Total Height w/6' whip *(fully collapsed)*	9 feet, 4 inches
Total Height w/6' whip *(fully extended)*	11 feet
Weight	8 lbs.

Little Tarheel . . . 7-54 MHz . . . 200 Watts PEP . . . *Dynamite comes in Small Packages!*

The Little Tarheel, when properly installed on your vehicle, will provide continuous coverage from 7.0 to 54 MHz with the supplied whip. The Little Tarheel II will provide continuous coverage from 3.5 to 54 MHz with the supplied whip.

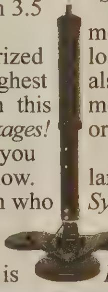
Both antennas, like all of our motorized antenna models are built to meet the highest standards but in a much smaller size. In this case, *Dynamite really comes in small packages!*

Sensors are already preinstalled so you can add one of the auto controllers below. Little Tarheels are designed for the ham who wants to enjoy HF mobile but not interested in a huge antenna on the car.

Don't let the small size fool you, it is designed to be mounted higher on the vehicle and when mounted higher you have much less ground losses which equal better performance. It also lets you use a more common type of mount like the MFJ-336T tri-magnet mount or MFJ-345T lip mount.

TH-1LHP
$369.95
7.0 to 54 MHz
Ship Code C

TH-2L
$369.95
3.5 to 54 MHz
Ship Code C



You get the same great look as our other larger antennas with our *Power Coat Paint System* and our *Lexan™ Weather Shield* -- not the flimsy stuff that others use.

Little Tarheel series uses the *Pittman commercial* 12-Volt gear motor.

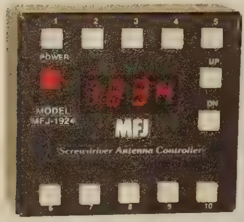
Included standard with the screwdriver antenna is the whip, 20 feet of plug-n-play control cable, manual control box, ferrite decoupling core and 3/8-24 threaded stud.

ANTENNA SPECIFICATIONS		
	TH-1LHP	**TH-2L**
Lower Mast Size	1.5"	1.5"
Lower Mast Length	16"	16"
Whip Length	32"	32"
Total Length *(fully collapsed)*	48"	48"
Total Length *(fully extended)*	54"	54"
Freq. Coverage *(Continuous)*	7.0-54 MHz	3.5-54 MHz
Power Rating	500W PEP	200W PEP
Typical SWR	1.5 or less	1.5 or less
Weight	1.8 lbs.	1.9 lbs.

MFJ Programmable Screwdriver Antenna Controllers

Programmable Screwdriver Antenna Controller

10 Memories . . . Super Accurate . . . AutoPark™ . . . StallProtector™ . . . Super bright LEDs



MFJ-1924
$129.95
Ship Code A

Tuning your mobile screwdriver antenna couldn't be easier!

Save *ten* favorite screwdriver antenna positions in memory and quickly return to any saved position.

Up/Down buttons let you manually move the antenna to any desired position. A 4-digit turns counter gives you precise antenna position -- you can see its *super bright LEDs* even in direct sunlight!

Returning to a position from memory is extremely accurate for three reasons . . .

A. The antenna always moves to its desired position from the bottom, insuring that the motor is always loaded the same.

B. MFJ's exclusive *AutoPark™* feature automatically bottoms your antenna for parking in your garage and *resets and calibrates* your counter each time to eliminate antenna slippage and turns count errors.

C. The momentum of the moving antenna causes it to overshoot its stop point. MFJ's exclusive *Dead-OnSTOP™* feature automatically reverses the motor briefly just before it stops to eliminate overshoot and come to a precise stop.

MFJ's exclusive *StallProtector™* feature prevents your expensive motor from burning out. Automatically detects motor stall and completely shuts off power to motor.

Motor current can be monitored on LEDs for trouble and stall current.

Compatible with single and dual magnetic turns sensors. Requires 12 VDC. 3½Wx3¼Hx1¼D inches. Power, motor control and sensor lines included.

Magnetic Sensor Kits for MFJ-1922B/1924/1926

MFJ-82, $29.95. for High Sierra .
MFJ-83, $9.95. for Hi-Q Antennas.

Automatic *Screwdriver Antenna Controller* : Icom/Kenwood/Yaesu

New!

Automatic Screwdriver Antenna Controller For ICOM Radios
MFJ

MFJ-1927 K,I,Y
$159.95
Ship Code A

MFJ-1927 is perfect for your Icom, Kenwood, or Yaesu rig equipped with a CI-V interface. Connect the controller to your rig and the MFJ-1927 receives the frequency data and will automatically tune your screwdriver antenna. Has all features of MFJ-1924. Includes radio interface cable. 3½Wx3¼Hx1¼D in.

MFJ Digital Screwdriver Controller

POWER
ON
MFJ

MFJ-1922B
$109.95
Ship Code A

Tells you exactly where your antenna is positioned! Re-tune *exactly* -- fast, no more guessing. *Super bright* .40" high-intensity 4-digit LED display and precision micro-controller gives digital count range -999 to +999. On/off/reset switch for easy calibration. 3½Wx3¼H x1¼D inches. Use 13.8 VDC.

Portable/Mobile Emergency Communications Center

NEW! MFJ-897 for Yaesu *FT-897D* Rig!!!

The MFJ-706/7000/897 is an *Emergency Communications* (*EmComm*) box that turns your ICOM IC-706, IC-7000 or Yaesu FT-897D into an instant and foolproof portable/mobile emergency communications center. It covers all HF, VHF and UHF amateur radio frequencies available on the IC-706/7000/FT-897D popular transceivers.

It is literally a complete *"grab-and-go"* communications center that can provide a full 100 Watts SSB/CW signal simply by plugging into any available vehicle cigarette lighter socket or light-duty 10 to 15 Amp 12 VDC power supply.

An MFJ exclusive *PeakPowerBoost*™ circuit delivers instantaneous SSB/CW power peaks using several Farads of super capacitance.

A built-in, full range automatic antenna tuner turns any random wire or other antenna into a highly effective HF antenna. Simple foolproof automatic tuning is done with a single push of a button.

A 3/8-24 antenna mount gives you the ability to screw on a loaded whip (such as a Hamstick) for long range HF communication or use a high-gain VHF/UHF antenna for local communications.

The IC-706/7000/FT-897D control heads can easily be removed and placed in a convenient location while the larger *MFJ EmComm* box can be placed in the trunk, or on the floor or backseat of your vehicle.

MFJ-706
$399⁹⁵
Ship Code D

706/mic not incl.

MFJ-7000
$399⁹⁵
Ship Code D

MFJ-897
$399⁹⁵
Ship Code D

MFJ-706/7000 are a compact 6¾Wx4½Hx13½D inches. MFJ-897 is 8¾Wx4½Hx13½D inches.

When you're ready to move on, just grab the handle and go. Handle is positioned so the *MFJ EmComm* box is perfectly balanced for carrying. Tough front and back covers secure and fully protect all of the enclosed electronic gear.

A convenient compartment stows your microphone and other small accessories so you are always ready for emergencies.

The IC-706 and IC-7000 and FT-897D speakers are fully exposed so speech audio is always loud and clear.

The transceiver is well ventilated to prevent overheating so you can provide continuous high-power communications.

MFJ-706/7000 and FT-897D can be used horizontally or vertically.

When a sudden emergency arises you literally can grab an entire communications center, rush to the site, and be in instant HF/VHF/UHF communication in minutes!

Simple, reliable emergency communications can easily be provided by any untrained personnel.

IC-706™ *Presentation Stand*

MFJ-361
$34⁹⁵
Ship Code A

IC-706, mic not included.

Beautifully blend an entire Ham Radio Station into your living room! *Icom*™ 706 detachable panel and speaker are displayed on an attractive compact stand. Put the rig, power supply and antenna tuner out-of-sight. Hide an unsightly rat's nest of power cables, feedlines and AC cords. Adjustable height and tilt for best viewing angle. Optimized for highly intelligible speech and CW, the MFJ-281 speaker can be tilted for best sound. Large soft rubber feet. All hardware is included to mount your IC-706 detachable front panel (*must be mounted on Icom MB-63 mounting bracket*). 12Wx1¼Hx4⅛D in.

MFJ *Truck Trailer Hitch* Antenna Mount

MFJ-2822
$39⁹⁵
Ship Code B

MFJ-2822 slides into your trailer hitch slot and a bolt locks it in place. Your trailer hitch mount can hold small, medium and large HF/VHF/UHF antennas -- you can even mount the tiny Tarheel Screwdriver HF antenna.

Heavy-duty aluminum construction. Includes large nut and bolt. Has SO-239 for VHF/UHF antennas and a 3/8-24 threaded *GumDrop*™ connector for HF antennas.

Removes height restrictions by mounting your antenna at the lowest possible point on your truck or SUV. 2Wx2Hx10¼D inches.

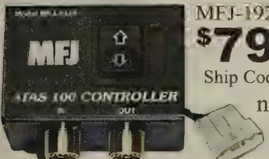
MFJ *Stainless steel License Plate Antenna Mount*

MFJ-2820
$49⁹⁵
Ship Code B

Replace your license plate with the MFJ-2820 and remount your license plate. This gives you a convenient no-hassle sturdy antenna mount for most HF/VHF/UHF antennas -- great for low garages! Has holes for 3/8-24 HF mount or SO-239/NMO VHF/UHF mount. Braced *stainless steel* construction.

Antenna is offset mounted so it does not block license plate. Clearance hole for lamp. Antenna can be mounted above or below license plate. Ground wire holes. May not work with all vehicles.

Use *any* rig with Yaesu ATAS Screwdriver Antenna

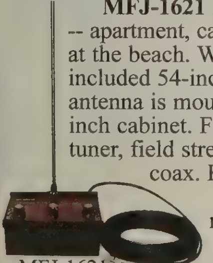


MFJ-1925/I2
$79⁹⁵
Ship Code A

MFJ lets you use the popular Yaesu ATAS series screwdriver antennas with popular Icom, Kenwood, Alinco, and other transceivers. **MFJ-1925 I2** plugs directly into the popular Icom IC-706 transceiver. An Up/Down switch puts the Icom 706 in low power and tunes the antenna. MFJ-1925/I2 is simple to install. No modification to radio/antenna is needed. SO-239 connectors. **Order** MFJ-1925 I2 for Icom 706. **Order** MFJ-1925 for Kenwood, Alinco and compatibles.

MFJ 10-40 Meters *Portable* Antenna

DXCC, WAZ, WAC, WAS won with MFJ-1621!


MFJ-1621
$99⁹⁵
Ship Code B

MFJ-1621 lets you operate anywhere -- apartment, campsite, resort hotel, even at the beach. Work 40-10 Meters using included 54-inch telescoping whip. The antenna is mounted on a sturdy, 6x3x6 inch cabinet. Features a *built-in* antenna tuner, field strength meter, 50' RG-58 coax. Handles 200W PEP SSB.

It's a complete portable multi-band antenna system -- use it in any location. 3/8x24 threaded connector disengages easily and collapses to 22" for easy portability. Just place in any electrically clear location, set the bandswitch, tune the capacitor for maximum field strength and operate!

Whip Tuner/Artificial Ground gives *instant* 80-10M, 150 Watt Antenna

MFJ-1644
$159⁹⁵
Ship Code B

Just add a short whip and counterpoise wire and *instantly* get an effective and portable 150 Watt *all-band* 3.5-30 MHz antenna. Compact and simple-to-use portable, fixed and in emergencies.

High power, hi-Q 3-core variable loading coil efficiently resonates short whip or wire. Identical inductor tunes counterpoise. Use 30-10 Meters with included 12' telescoping whip antenna and counterpoise assembly.

Add longer whip/random wire and external loading coil for more efficient operation especially on 80-30M. 12' whip, hamstick, Hustler antennas all work great.

Tune for low SWR with built-in reversible L-network. *Current balun* decouples radiating elements.

Tune for maximum current on *RF Current Meter* to give you maximum radiated power and minimum SWR. Sensitivity control lets you use QRP to 150W QRO.

Ultra low capacitance fiberglass antenna/counterpoise insulator minimizes shunting current to ground for max radiated power.

Standard 3/8x24 female connector for whip antennas and wing-nut for counterpoise. SO-239. 7¼Wx2¼HX2½D inches.

MFJ-63, $39.95. High-efficiency air-wound 80/40M loading coil with 3/8x24 male/female connectors.

MFJ-1642, $129.95.
Like MFJ-1644 but less *RF Current Meter*.

Collinear Array and End-Fed Zepp Antennas

2-elements, 2 dB gain . . . 4-elements, 4.5 dB gain . . . Very Quiet . . . Handle 1500 Watts . . .

When Radio was King . . .

These classic high-performance antennas give you a powerful, booming signal, need just two trees are updated with stronger, more durable materials, adapted to simple, direct coax feed to make them hang-and-play.

Two and Four Element Arrays

MFJ-62XX single band *two* half-wave element collinear array gives you nearly *2 dB gain* -- about 150% power gain -- and *twice* the receiving capture area of a half-wave dipole. They have direct coax feed and low SWR across the entire band.

The MFJ-64XX *four* half-wave element collinear array gives you a whopping *4.5 dB gain* -- about 300% power gain. You get *four* times the receiving capture area of a half-wave dipole -- you'll hear DX you've never heard before! They require a balanced line tuner or a tuner with balun.

Hang and Play™!

Virtually *hang and play™* when you receive them. No cutting, soldering, tuning, or trimming needed. Follow easy set-up instructions and you're on-the-air!

They are completely assembled and include super strong custom fiberglass center insulators, authentic glazed ceramic end insulators, heavy duty 7-strand, 14 gauge hard copper element wire and an extremely strong, solderless, crimped construction.

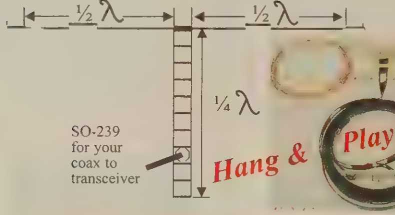
With larger capture area and power gain, you'll hear & work more DX than ever before!

A pair of these at right angles can provide worldwide coverage. These arrays radiate bi-directional perpendicular to the wire and handle full 1500 Watts and reduce noise up to three S-units below verticals.

Feedline and stub simply hangs from antenna and is bent at the bottom or pulled away at an angle to make it convenient.

1/2 Wave End-Fed Zepps

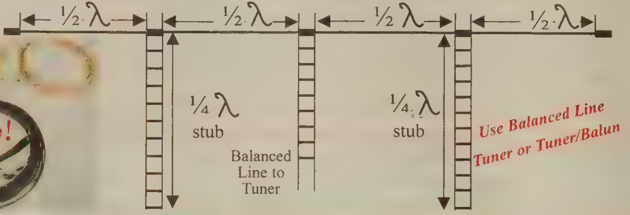
When an end-fed antenna is desirable or when a center-fed antenna is not possible or convenient, these *hang and play™* end-fed Zepp antennas provide excellent no-compromise performance. The MFJ end-fed Zepp is a *completely assembled* single band half-wave antenna. It's designed for *direct coax feed* and handles a full 1500 Watts legal limit with low SWR. *Hang and Play!* Just follow the easy installation instructions -- no cutting, soldering, tuning, or trimming. They radiate in a wide broadside pattern. Feedline/stub can be "bent" at the bottom, pulled away at an angle. Super-strong fiberglass feed point insulator, glazed ceramic insulator, heavy-duty 7-strand, 14 gauge hard copper wire, extremely strong solderless crimped-construction. Super-strong custom fiberglass SO-239 mount provides stress-relief for the ladder line.



2-Ele. Collinear Array, 4 models

MFJ-6215, $44.95. 15M, 46' hor., 10' vert.
MFJ-6217, $49.95. 17M, 54' hor., 12' vert.
MFJ-6220, $49.95. 20M, 70' hor., 16' vert.
MFJ-6230, $54.95. 30M, 96' hor., 22' vert.
MFJ-6240, $64.95. 40M, 136' hor., 30' vert.

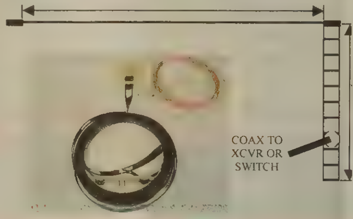
Coax feedline is not included.
All are Ship Code B.



4-Element Collinear Array, 3 models

MFJ-6415, $99.95. 15M, 92' hor., 10' vert.
MFJ-6417, $104.95. 17M, 108' hor., 12' vert.
MFJ-6420, $114.95. 20M, 140' hor., 16' vert.

Each includes 100 feet of 450 Ohm ladder line for connection to your tuner.
All are Ship Code B.



1/2 Wave End-Fed Zepp, 5 models

MFJ-6115, $36.95. 15M, 23' hor., 10' vert.
MFJ-6117, $38.95. 17M, 27' hor., 12' vert.
MFJ-6120, $39.95. 20M, 35' hor., 16' vert.
MFJ-6130, $44.95. 30M, 48' hor., 22' vert.
MFJ-6140, $49.95. 40M, 68' hor., 30' vert.

Coax feedline not included. Ship code B.

MFJ W9INN Balun Box

Converts unbalanced coax line to balanced ladder transmission line. *Giant* 2-core 4:1 balun wound with *Teflon*(R) wire. 3$^1/_4$x2$^1/_4$x7 in. Heavy duty ceramic feed-thru insulators. 1500 Watts full legal limit. SO-239. Ground post, mounting holes.

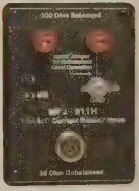
W9INN BALUN BOX
MODEL MFJ-912
MFJ
TRANSMITTER

MFJ-912
$69.95
Ship Code B

Switchable 1:1 or 4:1 Current Balun/Unun

Switchable. 1:1 or 4:1 current balun/unun. *Transmission line transformer* uses low-permeability ferrite cores to give amazingly flat response 1.8-30 MHz. Transforms 200 or 50 ohm balanced or unbalanced loads to 50 ohms. Change balanced to unbalanced with ground post. 300 Watts. 2$^1/_2$Wx4$^3/_4$Hx1D inches.

MFJ-911H
$34.95
Ship Code A

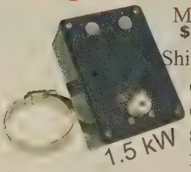


True 4:1 Current Balun/Unun

True 4:1 current balun/unun transforms 200 ohm balanced and unbalanced loads to 50 ohms. True *transmission line transformer* gives an amazingly flat response 1.8-30 MHz. Two low-permeability ferrite cores easily handles 300 watts. Change balanced to unbalanced with ground post. 2$^1/_2$Wx4$^3/_4$Hx1D inches.

MFJ-911
$24.95
Ship Code A

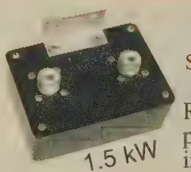
Yagi Boom-Mounted Balun



MFJ-2911
$39.95
Ship Code A

This 1:1 current-choke style balun mounts on the boom of your HF or 6-Meter Yagi to transition from unbalanced feedline (coax) to the balanced driven element. Prevents unwanted pattern distortion from feedpoint imbalance, radiation from outer surface of coax shield, element de-tuning, RFI to consumer electronics and noise transfer to the radio's receiver. MFJ uses a toroid style transmission line choke that is rated for max legal power on SSB/CW and that delivers an impressive 35 dB of through-transmission (S21) common-mode isolation. Molded case, SO-239 connector. 5$^1/_2$Wx2Hx3D in.

MFJ Wall-Mounted Balun



MFJ-2912
$39.95
Ship Code A

Mounts on the exterior wall of your shack to keep RF out of your operating position and away from internal house wiring. Also prevents electrical noise generated in your location from migrating up to the antenna feedpoint and raising your receiver's noise floor. Toroid-style transmission-line choke is rated for maximum legal power on SSB/CW. Delivers an impressive 30+dB of through-transmission (S21) common-mode isolation on 80-10 Meters. Convenient disconnect point for lightning protection. All-stainless hardware and rugged components. SO-239 connector. 4Wx2$^1/_8$Hx2$^3/_4$D inches.

MatchMaker™ Feed Network

MFJ-2975H
$39.95
Ship Code A

Raise your HF dipoles high above ground for better DX without losing that perfect 1:1 match! This center block transforms 75 Ohm loads down to 50 Ohms. Has a superbly effective 1:1 current balun for transition from balanced element to coaxial line. 1.5kW PEP SSB/CW. 4Wx1$^1/_2$Hx2$^3/_4$D inches.

MFJ-29100H, $39.95. Transform 100 Ohms to 50 Ohms. MFJ-29100H has the same features as the MFJ-2975H.

The following have the same features as the above models but handle 300 Watts.

MFJ-2975, $34.95. For 75 Ohms.
MFJ-29100, $34.95. For 100 Ohms.

MFJ *UltraLite*™ and *PowerLite*™ OCFD Wire Antennas

Delivers Amateur Radio's most-interesting DX bands -- 40, 20, 10 & 6 Meters -- to your fingertips!

40/20/10/6M
300 Watts

MFJ-2010
$59.95
Ship Code B

MFJ-2010 *Ultra-Lite*™ for 40,20,10 and 6 Meters, handles 300 Watts PEP SSB/CW.

Perfect for low-profile portable and QRP operation. Weighs less than two pounds and pulls high in the air with lightweight cord.

Virtually invisible 66-foot jacketed wire element. Delivers up to 6-dBi gain on 40 Meters, 9-dBi on 20 Meters, and a whopping 11.5-dBi gain on 10 and 6 Meters! Long leg is 44.6 and short is 22.3 feet.

Day or night, there's always DX on these bands. If you hear it, you'll work it -- even QRP!

MFJ-2013, $79.95. Ultra-Lite™ for 60/30 Meters, handles 300 Watts PEP SSB. Get 1/2 wave dipole ERP on 60-Meters plus up to 9-dBi of globe-spanning gain on 30M. Brings a whole new meaning to 30-Meter QRP. 86 feet long.

40/20/10/6M
1.5 kW

MFJ-2012
$79.95
Ship Code B

MFJ-2012 *Power-Lite*™ 40/20/10/6 Meters, handles 1500 Watts PEP CW/SSB. 121.75' long overall, long leg 89.3, short leg is 32.45 feet. Robust high-power version of the MFJ-2010 with 14-guage stranded-copper wire and porcelain end insulators. Pull-tested to 200 pounds.

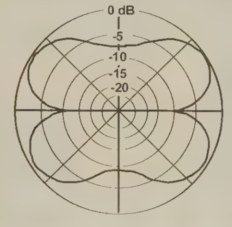
75/40 Meters
1.5 kW

MFJ-2014
$99.95
Ship Code B

MFJ-2014 *Power-Lite*™ for 75 and 40 Meters, handles maximum legal limit 1500 Watts PEP CW/SSB. Replaces your old 75-Meter dipole and adds 40 Meter coverage with up to 9-dBi of *powerhouse gain!* Rugged 122' long. Great for foreign broadcast and 7-MHz!

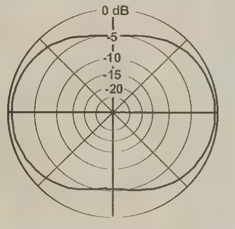
MFJ-2016, $129.95. *Power-Lite*™ for 160 and 75 and 40 Meters, handles maximum legal limit 1500 Watts PEP CW/SSB. Covers the low end of 160 Meters plus delivers 9-dBi gain in the 75 Meter SSB DX window. Heavy-duty components, rugged construction. 240'.

40-Meter Pattern, MFJ-2014
20-M Pattern, MFJ-2010/12



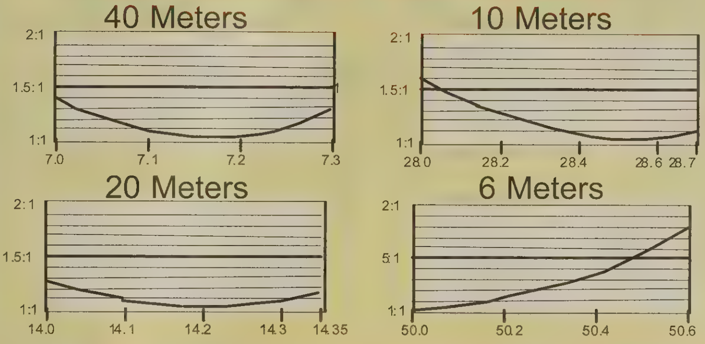
Outer Ring 9.1 dBi

75-Meter Pattern, MFJ-2014
40-Meter Pattern, MFJ-2010/12



Outer Ring 6.5 dBi

MFJ-2010/2012 VSWR Graphs



Engineered from the ground up, innovative new antennas by K1BQT break traditional OCFD design barriers to deliver wider bandwidth, lower SWR, solid gain, and full-frequency agility without a tuner!

How good are they? W4ILV bought an MFJ-2012 and wrote EHAM, *". . . the best wire antenna I've ever used!"* **We think you'll agree, and here's why:**

Highest Efficiency. Full-sized radiator with *Matchmaker*™ feed block that tests over 98-percent efficient. *All your power gets radiated!*

Best Match. NEC-modeled element delivers the same feed-point impedance on every band. Innovative new transformer designs yield exact ratio needed for a great match.

Super Balun. OCFDs need good baluns to block feedline radiation. Built-in bifilar-wound Guanella current-choke has over 30-dB of common-mode rejection on all bands. Kills pattern irregularities, RFI, noise.

Real Gain. Delivers a 6-dBi ground-reinforced dipole pattern on the fundamental and a 9-dBi full-wave cloverleaf on the second harmonic. You get an amazing (up to) 11.5 dBi peak gain on higher bands.

Height Compensation. Element feedpoints are compensated for typical mounting height, so you always get the lowest possible SWR on all bands!

Frequency Compensation. Normally, a OCFD cut for 3.85 MHz resonates on 7.7 MHz. Our unique OCFD element design resonates at mid-band on both 75 and 40!

Built to Last. UV-resistant marine-ABS feedblocks, stainless hardware, and *Teflon*® SO-239 connector ensure maximum protection from the environment.

Easy-to-Install. Installs in flat-top or inverted-V set-up, feedblock has attachment points for tower or tree support. Suggested installation height is 35-70 feet.

Low Cost. Outperforms multi-band vertical antennas by a wide margin for an unbelievable fraction of the cost!

MFJ Apartment Antennas . . . Mount indoor or outdoor, windows, balconies . . .

MFJ-1622
$99.95
Ship Code C

MFJ-1622 lets you operate 40-10 Meters on HF, 6/2 Meters on VHF with a single antenna! Universal mount/clamp lets you attach it to window frames, balconies and railings. Works great indoors mounted to a table or bookshelf. It's not a 5-element yagi, but you'll work your share of exciting DX! Highly efficient air wound *"bug catcher"* coil, telescoping 5½' radiator lets you really get out! Radiator collapses to 2½ ft. for easy storage and carrying. Includes coax, choke balun, counterpoise wire and safety rope. Operating frequency adjusted by moving the "wander lead" on the coil and adjusting the counterpoise for best SWR.

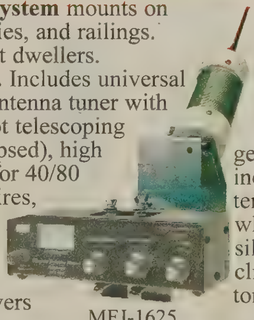
Complete antenna system mounts on window frames, balconies, and railings.

Perfect for apartment dwellers.

Covers 80-6 Meters. Includes universal mount/clamp, built-in antenna tuner with RF isolator, long 12 foot telescoping whip (22.5 inches collapsed), high efficiency loading coil for 40/80 Meters, counterpoise wires, and safety rope. Handles 200 Watts.

MFJ-1623, $179.95. Like MFJ-1625, but covers 6 through 30 M.

MFJ-63, $39.95. *High-efficiency* air-wound 80/40 Meter loading coil with 3/8x24 male and female connectors. For whips and verticals.



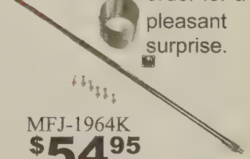
MFJ-1625
$199.95
Ship Code C

The ultimate portable HF vertical antenna!

In this kit, you get a 2.5" dia., 5-inch length coil; a ten foot telescopic whip; six special silver plated coil clips, and a chassis mount SO-239 connector.

The rest of the parts needed to build this antenna are in Phil Salas, AD5X' article from QST Magazine, 2005. The antenna is a full quarter-wave on 20-10 Meters, and also works 60, 40 and 30 Meters. *Have fun!*

Mention AD5X when you order for a pleasant surprise.



MFJ-1964K
$54.95
Ship Code B

MFJ All-Band G5RV Antennas

Operate all bands through 10 Meters, even 160 Meters, with a single wire antenna!

MFJ-1778
$44.95
Ship Code B

***MFJ's** famous G5RV antenna is the most popular ham radio antenna in the world!* You hear strong signals from G5RVs day and night, 24/7.

And it's no wonder . . . it's an efficient, *all band* antenna that's only 102 feet long -- shorter than an 80 Meter dipole. Has 32.5 foot ladder line matching section ending in SO-239 connector for your coax feedline.

Use as Inverted Vee or Sloper, and it's even more compact and needs just one support.

With an antenna tuner, you can operate all bands 80 Meters through 10 Meters and even 160 Meters with an antenna tuner and a ground.

MFJ's fully assembled G5RV handles 1500 Watts. *Hang and Play™* -- add coax, some rope to hang and you're on the air!

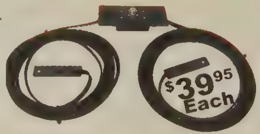
MFJ-1778M, $39.95. *Half-size*, 52 foot *G5RV JUNIOR* covers 40-10 Meters with tuner. Handles 1500 Watts.

MFJ All Band Doublet

MFJ-1777
$59.95
Ship Code B

MFJ-1777 is a 102 foot *all band* doublet antenna that covers 160 through 6 Meters with a balanced line tuner. Super strong custom fiberglass center insulator provides stress relief for ladder line (100 ft. included). Authentic *glazed ceramic* end insulators. Handles 1500 Watts.

Folded Dipole Portable Antennas

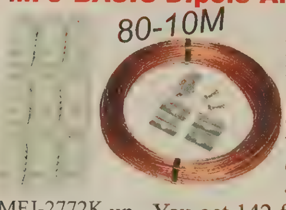


$39.95 Each

Single band, *lightweight*, portable folded dipoles. Low SWR, direct coax feed, 200 W.

Perfect for MFJ Rigs! **MFJ-1774B** (40M); **MFJ-1773B** (30M); **MFJ-1772B** (20M); **MFJ-1771B** (17M); **MFJ-1770B** (15M); **MFJ-1770C** (10M); **MFJ-1776B** (6M);

MFJ *BASIC* Dipole Antenna Kit



80-10M

Everything you need to make one 80-10M dipole antenna or up to three different dipoles for 40 Meters and up. You get 142 feet of 14-gauge stranded copper antenna wire, 9 ceramic "dog-bone" insulators, and 6 aluminum wire clamps with stainless steel nuts and screws. The special wire clamps allow you to adjust wire length easily and also hold it in place before you make that final cut decision.

MFJ-2772K
$39.95
Ship Code A

DELUXE Dipole Antenna Kit

80-10M

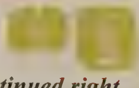
MFJ-2774K
$59.95
Ship Code A

MFJ-2774K has everything that is in the MFJ-2772K *plus* 3 multi-purpose center insulators, 100 feet of 1/8" nylon rope, 2 PL259s, 2 RG-58 reducers, SO-239, stainless steel screws/nuts,. Has 6 ceramic insulators. Make a G5RV, doublet or dipole. Multi-purpose center plates have pre-punched holes designed to secure and relieve stress of feedline weight. Use ladder or coax. Pre-punched hole for SO-239.

Optional feedlines available below.

MFJ-18H050, $19.95. 50' 450 Ohm line.
MFJ-18H100, $34.95. 100' 450 Ohm line.
MFJ-5850, $24.95. 50' RG-58 w/PL259s.
MFJ-58100, $39.95. 100'RG58 w/PL259s.
Other Coax, Lengths available, see pg. 10.

Dipole Center Insulators



A. MFJ-16D01, $6.95. Super strong custom fiberglass stress relieving center insulator for 450 Ohm ladder line.

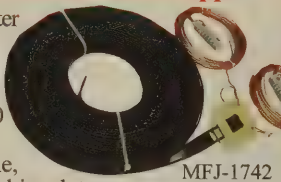
. . . Continued right

MFJ *Single Band* Dipole Antennas

MFJ-1779A	MFJ-1779B	MFJ-1779C
$69.95	**$49.95**	**$29.95**
265 ft., 160M	135 ft.,80-40M	35 ft., 20-6M
Ship Code C	Ship Code C	Ship Code C

Ultra high quality center fed dipoles will give you trouble-free operation for years. Custom injection-molded UV-resistant center insulator, built-in connector, hang hole. Heavy duty 7-strand, 14-gauge hard copper wire. Extremely strong solderless crimped construction. Authentic *glazed ceramic* end insulators. Use as horizontal, sloping dipole or inverted vee. 1.5 kW. Cut to length for your favorite frequency with cutting chart.

20 Meter *Extended Double Zepp*



MFJ-1742
$79.95
Ship Code B

90 foot long, 20 Meter *Extended Double Zepp. Whopping 3 dB gain* doubles your power! 80-10 Meters with tuner. 100 feet ladder line, *glazed ceramic* end insulators, ladder line stress relieving fiberglass center insulator, 7-strand, #14 gauge hard copper wire. 1500 Watts. Requires balanced line tuner or tuner/balun.

MFJ *Compression* Ceramic Insulators

MFJ-17A01 **$2.05** each
MFJ-17B01 **$4.19** each
MFJ-17C01 **$6.25** each

Model	Cable dia.	Hole dia.	Height	Diam.	Force-lbs
17AO1	1/4"	.256"	2.32"	1.61"	N/A
17B01	5/8"	.630"	3.50"	2.52"	10,000
17C01	3/4"	.787"	4.25"	2.87"	12,000

. . . Continued from left

B. MFJ-16D02, $8.95. *Multi-purpose* feed line stress relieving center insulator. Center plate has pre-punched holes designed to secure and relieve stress of your antenna's feedline weight. Can be used with 450 Ohm ladder line or coax feedline. Pre-punched holes for SO-239 connector.

Dual Band HF Dipole Antennas

80/40 Meter Dipole Antenna

MFJ-17758
$89.95
Ship Code C

MFJ-17754
$59.95
Ship Code C

MFJ-17758, $89.95.

Short 85 foot long *dual band* 80/40 Meter dipole antenna is *full-size* 40 M and ultra-efficient end-loading on 80M. 1.5kW. Super-strong injection-molded center insulator, built-in SO-239, hang hole. Solderless, crimped construction. 7-strand, #14 ga. hard copper antenna wire. Connect coax feedline directly, no tuner needed.

40/20 Meter Dipole Antenna

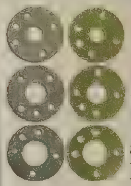
MFJ-17754, $59.95. Like MFJ-17758, 42' *dual band* 40/20M dipole. Full-size 20 Meters, ultra-efficient end-loading on 40M.

80 Meter *End-Fed Zepp*

MFJ-1748
$79.95
Ship Code B

High performance, no compromise *End-fed Zepp. Use when center feed is not possible or desirable. 125 feet* long, includes 100 feet ladder line. Strong fiberglass insulator provides ladder line stress relief. *Glazed ceramic* end insulator. 1500 Watts. Requires balanced line antenna tuner or tuner/balun.

Aluminum or Fiberglass Mast Guy Rings

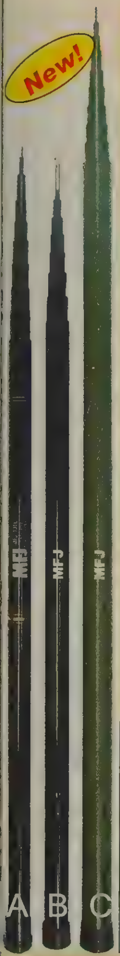


Designed to fit standard aluminum and fiberglass tubing from 3/4", 1" or up to 1¹/₄" diameter OD. Strong aircraft grade aluminum 1/8" thick and 2¹/₂" OD. *New!* Fiberglass rings made from 1/8" thick FR4. Five 3/8" holes are properly arranged for 3 or 4 point guy line configurations. Holes are chamfered which provides for a smooth surface for guy line connection. Buy *aluminum-type*, **MFJ-2830A, B or C, $2.49 each** or a *set-of-three*, **MFJ-2830X, $6.95.** Buy *fiberglass-type*, **MFJ-2840A, B or C, $2.99** each or a *set-of-three*, **MFJ-2840X, $8.25.**

Model#	Price	Description
MFJ-2830A	$2.49	For 3/4 inch aluminum guy ring.
MFJ-2830B	$2.49	For 1 inch aluminum guy ring.
MFJ-2830C	$2.49	For 1¹/₄ inch aluminum guy ring.
MFJ-2830X	$6.95	Set of 3 alum. guy rings, has all 3 above.
MFJ-2840A	$2.99	For 3/4 inch fiberglass guy ring.
MFJ-2840B	$2.99	For 1 inch fiberglass guy ring.
MFJ-2840C	$2.99	For 1¹/₄ inch fiberglass guy ring.
MFJ-2840X	$8.25	Set of 3 fiber guy rings, has all 3 above.

MFJ Telescopic Fiberglass Masts

New!



Lightweight Telescopic *Portable* Masts -- 20-43 feet!

Just pull out each section and twist to lock. These portable, temporary telescopic fiberglass masts extend to the sky! Select from 20 to 43 feet, 5 models.

Each mast collapses to an acceptable height for true portability. These fiberglass masts are also super lightweight and with high strength. Weight is not a factor -- the largest mast, MFJ-1917 weighs just 7.7 lbs. Twist and Lock sections allow quick pull-up and take-down.

Use them while traveling, camping, from hotels, hamfests, field day, DX-peditions. MFJ-1917, the-largest mast can be used for a full-time permanent wire installation or small, lightweight beam or vertical.

Put up a full size inverted Vee, dipole or vertical antenna in minutes and get full size performance and the height you need to QSO with anyone, anywhere.

Use multiple telescopic masts to construct other types of antennas like loops, quads, rotatable dipoles even beams. The ideas are endless!

A. MFJ-1910, $79.95. 33 ft., light duty w/top tie ring.
B. MFJ-1911, $89.95. 20 ft., light duty w/top tie ring.
B. MFJ-1913, $89.95. 28 ft., lightweight w/top tie ring.
C. MFJ-1915, $139.95. 25 ft., for heavy duty use.
C. MFJ-1916, $159.95. 34 ft., for heavy duty use.
C. MFJ-1917, $169.95. 43 ft., heavy duty w/top tie ring.

Model No. MFJ-	Max Height	Coll-apsed Length	Top Dia. Inches	Bot Dia. Inches	Bot Thick Inches	Top Thick Inches	No of sections Total	Weight in lbs.
1910	33 ft.	3.75ft	.100	1.750	.057	.032	10	3.3
1911	20 ft.	3.83ft	.877	1.830	.080	.050	6	3.6
1913	28 ft.	3.83ft	.333	1.830	.080	.032	8	4.4
1915	25 ft.	4.79ft	1.02	2.165	.096	.050	6	6.8
1916	34 ft.	4.79ft	.686	2.165	.096	.050	8	7.5
1917	43 ft.	4.79ft	.160	2.165	.096	.038	10	7.7

Super-Strong Fiberglass Mast -- Select 10, 22, 33 or 43Feet!

MFJ-1904H	MFJ-1904HD	MFJ-1906H	MFJ-1906HD	MFJ-1908H	MFJ-1908HD
22 Feet	*25 Feet*	*33 Feet*	*38 Feet*	*43 Feet*	*50 Feet*
$13995	**$159.95**	**$189.95**	**$219.95**	**$229.95**	**$259.95**
Ship Code C	Ship Code C	Ship Code E	Ship Code E	Ship Code E	Ship Code E

This is a *super-strong* heavy duty telescoping MAST, not a flimsy pole! Masts are made of .125 inch *thick wall* fiberglass tubing. Support *"real"* weight including small yagis, verticals, loops, full-size dipoles, more.

Left: *Stainless Steel Hose Clamps* (use nut/screwdriver). Fiberglass is slotted. **Right:** Military quality UV protected *QuickClamps*. Guy 2 levels when fully extended.

Standard models and H models have 2-inch OD bottom sections and a 3/4" top section.

HD models are extra heavy-duty, they have 2½" OD bottom and 1" OD top sections. Standard model is supplied with stainless steel hose clamps. H and HD models come with military quality UV protected *QuickClamps*™.

MFJ-1906, $139.95/MFJ-1906H, $189.95 are 33 feet extended, 6 feet collapsed, six 6-ft. sections, 13 lbs.

MFJ-1908, $179.95/MFJ-1908H, $229.95 are 43 feet extended, 8 feet collapsed, six 8-ft. sections, 16 lbs.

MFJ-1908HD, $259.95 is 50' ext., 8' collapsed, has 2½" OD bottom, 1" OD top, seven 8-foot sections, 24 lbs.

MFJ-1906HD, $219.95 is 38' ext., 6' collapsed, has 2½" OD bottom, 1" OD top, seven 6' sections, 24 lbs.

MFJ-1904HD, $159.95 is 25' ext., 4' collapsed, has 2½" OD bottom, 1" OD top, seven 4 ft. sections, 14 lbs.

MFJ-1904H, $139.95. 22' ext., 5' collapsed, 9 lbs.

MFJ-1902H, $119.95 is 10' extended, 38" collapsed, weighs just 5 lbs., true portability -- fits in suitcase!

MFJ-1900, $69.95. Mast base mount. *See left.*

MFJ-14, $59.95. Extra set of 5 Military quality UV protected *QuickClamps*™. Fits 3/4" to 2" OD masts.

MFJ-14HD, $69.95. Extra set clamps, 1- 2½" masts.

Individual Fiberglass tubes, Aluminum masts and tubes . . . Pages 89 &132

Antenna Balun/Unun, Center Insulators & RF Isolators

MFJ Hi-Permeability Ferrite Bead Baluns

Choose from 1:1, 4:1 or 9:1 baluns . . .

MFJ
MFJ-918
Current Balun

MFJ-918
$24.95
Ship Code A

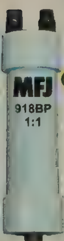
True Current Balun/Center Insulator forces equal antenna currents in dipoles for superior performance. Reduces coax feedline radiation and field pattern distortion -- your signal goes where you want it! Reduces TVI, RFI and RF hot spots in your shack. Don't build a dipole without one! MFJ 1:1 baluns use hi-permeability ferrite beads on high-quality RG-303 *Teflon*® coax. 4:1 and 9:1 baluns use RG-62 coax. Handles 1.5 kW, 1.8-30 MHz. Has *Teflon*® connectors, stainless hardware with direct 14-gauge stranded copper wire connector to antenna. Available in 1:1, 4:1 or 9:1 for dipole antenna, wall mount or portable uses.

For Center-fed Dipoles . . .

Made of heavy-duty weather protected PVC housing with *Teflon*® SO-239 connector, stainless steel eye bolts.

MFJ-918, $24.95. 1:1 balun. 2" diameter by 6 inches length.
MFJ-2919, $34.95. 4:1 balun, 2" diameter by 11 inches length.
MFJ-2920, $59.95. 9:1 balun, 2" diameter by 11 inches length.

For portable uses . . .



New!
MFJ-918BP
$29.95
Ship Code A

Made of heavy-duty weather protected PVC housing. Pair of red and black 5-way binding posts and *Teflon*® SO-239 connector.

MFJ-918BP,$29.95. 1:1 balun, 2"dia.x6" length.
MFJ-2919BP, $39.95. 4:1 balun, 2"Dx11" length.
MFJ-2920BP, $49.95. 9:1 balun, 2"dia.x11" L.

For Wall mount uses . . .

ABS weather-proof cover with mounting bracket. Tower, mast or wall mounted. 7Wx3Hx5⅜D inches. *Teflon*® SO-239 input and output connectors.

New!
MFJ-918WM
$29.95
Ship Code A

MFJ-918WM, $29.95. 1:1 Balun.
MFJ-2919WM, $49.95. 4:1 Balun.
MFJ-2920WM, $69.95. 9:1 Balun.

True 4:1 Current Balun/Center Insulators

MFJ-913
4:1 Current Balun

MFJ-913
$29.95
Ship Code A

MFJ-913/MFJ-919 are true current baluns/ antenna center insulators that transform 200 ohms to 50 ohms. Transmission Line Transformer construction using 100 ohm characteristic impedance transmission line gives flat 160-10 Meter response. Low permeability ferrite cores, SO-239, stainless steel hardware with direct 14 gauge stranded copper wire connection to antenna. Heavy duty weather housing. **MFJ-913** handles 300 Watts and is 4½"Hx2 inches in diameter.

MFJ-919 handles 1500 Watts. Sturdy cube shape housing, 3½W x3½H x2½D inches.

MFJ-919
$59.95
Ship Code A

MFJ-919
4:1 Current Balun

MFJ-915 RF Isolator

Stop RF from traveling on coax lines

MFJ
MFJ-915
RF Isolator

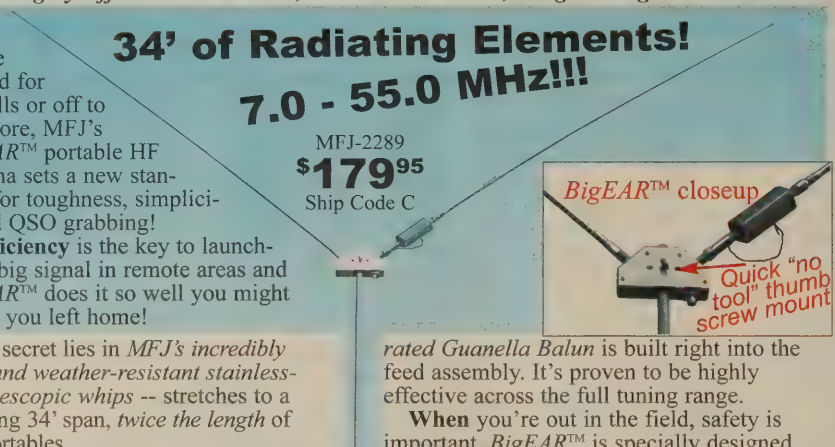
MFJ-915
$29.95
Ship Code A

MFJ-915 *RF Isolator* prevents unwanted RF from traveling on the outside of your coax shield into your expensive transceiver.

This unwanted stray RF can cause painful RF "bites" when you touch your microphone or volume control, cause your display or settings to go crazy, lock up your transceiver or even turn off your power supply. In mobile installations, stray RF can be even more drastic and harmful -- it could cause your car to do funny things or even (tragically) blow your automobile's computer system. Clear up these problems, plug an MFJ-915 RF Isolator between your antenna and transceiver and then relax. Heavy-duty weather protected PVC housing is just 5"Wx2 inches in diameter. Handles full legal limit, 1.5 kW. Covers 1.8-30 MHz.

BigEAR™ 8-Band Portable *Dipole*

Discover the BigEAR™ Advantage . . . BIG Signal, Best Bang for the BUCK! Backpack portable, fast set-up and tune, Continuous Coverage 7.0-55.0 MHz, Very Low SWR, Highly Efficient 34' Element, 1 kW PEP SSB/CW, Long-Lasting Construction!



MFJ-2289
$\$179^{95}$
Ship Code C

If you're headed for the hills or off to the shore, MFJ's *BigEAR™* portable HF antenna sets a new standard for toughness, simplicity and QSO grabbing!

Efficiency is the key to launching a big signal in remote areas and *BigEAR™* does it so well you might forget you left home!

The secret lies in *MFJ's incredibly strong and weather-resistant stainless-steel telescopic whips* -- stretches to a whopping 34' span, *twice the length* of other portables.

Add a robust 45-degree center block and our *unique Hi-Q matching system* and you have a *"pair of ears"* that digs out the weak ones that the other guys miss.

MFJ-2289 does it all with fewer parts to assemble and a much faster tune-up procedure. In fact, you'll be on-the-air with rock bottom SWR while your buddies are still reading their instruction manuals!

The MFJ-2289 is truly a "general coverage" antenna because you can tune it up with exceptionally low SWR on any frequency between 7.0 and 55 MHz.

With 34' of signal-radiating element available, you won't be handicapped by power-robbing losses of big loading coils.

You get consistent performance and maximum RFI protection because *our lab-rated Guanella Balun* is built right into the feed assembly. It's proven to be highly effective across the full tuning range.

When you're out in the field, safety is important. *BigEAR™* is specially designed to minimize risks of portable operation.

Heavy-duty components keep the MFJ-2289 up. Also the 1kW PEP power rating assures a wide margin of electrical safety.

And perhaps the greatest safety feature of all is a distinctive *V-shaped element* that keeps element tips high in the air to protect yourself and those around you from inadvertent contact. Your sight will be safe and so will your investment. Sturdy aluminum and stainless-steel construction.

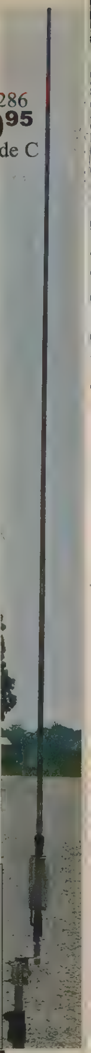
Includes U-bolt for up to 1$^3/_4$" masts.

MFJ-1919EX, $139.95. Optional Tripod includes telescopic fiberglass mast with *QuickClamps™* Maximum height to 18 feet. Collapses to 5 feet.

MFJ-1918EX, $89.95. Max height to 10'. Collapses to 3.8'. *See more below.*

Big Stick 8-Band Vertical Antenna

MFJ-2286
$\$99^{95}$
Ship Code C



For Top Portable Performance, Carry a "Big Stick"! Like our Big Ear, this portable monopole features MFJ's rugged 17' *stainless-steel* collapsible whip paired with an adjustable *high-Q* air-wound coil.

Efficiency matters, so it's not surprising this winning combination stands head and shoulders above shorter backpack antennas.

Consider these features:

True Backpack Portability: Antenna is over 18 feet long fully extended, but disassembles and collapses to 28" in seconds. Fits into most any size packs!

Light Weight: Just over 2 lbs., you'll hardly know your packing it!!!

Versatile: Includes MFJ-342T pipe mount -- quickly and easily mounts to a 1/4 or 1/2 inch pipe or mast. SO-239 with lock washer feeds coax underneath the 3/8-24 connector.

General Coverage: Tapped loading coil covers 7.0-55.0 MHz without gaps. Great for Ham Bands and outstanding for image-free shortwave broadcast!

Rugged Construction: All aluminum, stainless steel construction ensures years of excellent performance. *One Killowatt rated* components guarantee electrical safety.

Counterpoise kit included: Ensures low SWR, high efficiency, maximum site safety.

BigStick™ is for the Ham radio operator on the move and on-the-go *and hungry for the next great QSO anywhere or anytime!*

20M to FM Broadcast Multiband Portable Telescopic Dipole Antenna

Coax not included.

MFJ-2299
$\$129^{95}$
Ship code C

MFJ-2299 is a rugged *continuously adjustable* stainless-steel dipole that covers the FM broadcast band through 20 Meters. It sets up quickly and makes a great temporary antenna for apartments, motel balconies, RVs, mountain topping, and boating. Great for field day also!

Best-of-all, its full-size 1/2 Wave element delivers the high-efficiency you need to work QRP DX or monitor distant shortwave broadcasts from virtually any location. Frequency coverage is continuous. Optimum length may deviate slightly depending upon factors such as height above ground, proximity to nearby objects, etc. You simply adjust for the lowest SWR.

MFJ-2299 includes MFJ-347 dipole mount and two 17' MFJ-1979 stainless-steel telescopic whips with 3/8x24 studs, collapsible to 27 inches.

Super quick and easy to put together. Just screw the bracket onto your mounting pole, screw in the whips and add your coax! ***Save $10!*** Purchase the complete MFJ-2299 kit instead of individual parts.

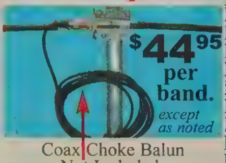
MFJ *"HF Stick"* mini-Dipole Mount

MFJ-347
$\$19^{95}$
Ship Code A

Build your own 80-6 Meter *mini*-dipole using two HF mobile whips! Mounts on mast up to 1$^1/_4$" OD. Super heavy-duty solid aluminum construction. Only MFJ has exclusive, *isolated* dipole elements that let you insert balun or coil up coax to isolate feedline. Gives you a true *balanced dipole* that prevents RF on coax shield, eliminates pattern distortion, reduces noise pickup and RFI radiation from coax and provides deep dipole end-nulls for nulling out interference.

Single-band Rotatable *mini-Dipoles*

Use these inexpensive, lightweight, *isolated* mini-dipoles when space is limited for temporary or permanent installations. Rotate to null QRM/noise and to focus your signal. Includes two HF sticks of your choice and MFJ-347 mini-dipole mount.



$\$44^{95}$ **per band.** *except as noted*

Coax Choke Balun Not Included.

Your Choice:
MFJ-2275 - 75M, $\$49^{95}$
MFJ-2260 - 60M, $\$49^{95}$
MFJ-2240 - 40M
MFJ-2230 - 30M
MFJ-2220 - 20M
MFJ-2217 - 17M
MFJ-2215 - 15M
MFJ-2210 - 10M
MFJ-2212 - 12M
MFJ-2206 - 6M

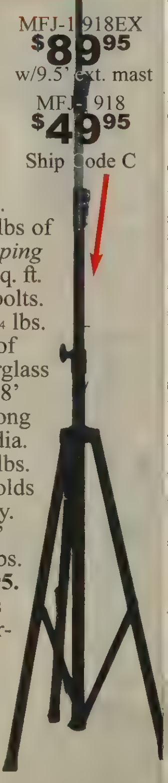
Portable Tripods

MFJ-1919EX
$\$159^{95}$
w/18' ext. mast

MFJ-1919
$\$89^{95}$
Ship Code D

MFJ-1918EX
$\$89^{95}$
w/9.5' ext. mast

MFJ-1918
$\$49^{95}$
Ship Code C



Each have black *steel* base forms with strong braced equilateral triangles on a side. Non-skid feet and strong base and mast locks.

MFJ-1919, $89.95, holds 100 lbs of antenna steady.Extends a *whopping* 7.8 feet. Base extends up to 4.8 sq. ft. 1.4" dia. mast accepts most U-bolts. Collapses to 54" by 6" dia. 9$^3/_4$ lbs.

MFJ-1919EX, $159.95. Base of MFJ-1919 *plus* telescopic fiberglass mast with *QuickClamps™*. 18' extended. 5' Collapsed. Strong 1/8" wall fiberglass, 3/4" dia. top, 1$^1/_2$" dia. bottom. 15 lbs.

**MFJ-1918, $49.95,** holds 66 lbs. of antenna steady. 6'extended. 1" dia. 38" collapsed, 4"dia.6$^3/_4$ lbs.

MFJ-1918EX, $89.95. Like MFJ-1918 plus 9.5' telescopic fiberglass mast with *QuickClamps™*. 3.8 ft. collapsed. $^3/_4$"top, 1" bottom. 6.5 lbs.

½ Wave, 6-Band *Rotatable* Mini-Dipole

Low profile 14 feet . . . 7 ft. turning radius . . . 40, 20, 15, 10, 6, 2 Meters . . . 1500 Watts . . . Directivity focuses signal, reduces QRM/noise . . .

WARC Band Version Now Available!

MFJ-1775
$\$249^{95}$
Ship Code D

You can hardly see this mini 14 foot rotatable dipole across the street!

Its tiny 7-foot turning radius fits on the smallest roof -- it's perfect for town houses, apartments and condos.

The MFJ-1775 is inconspicuous and low profile -- not much bigger than a TV antenna and can easily be turned by a lightweight TV rotator (*see AR-303/AR-500, page 123*).

It's no Wimp! Its *directivity* reduces QRM/noise and lets you *focus* your signal in the direction that you want -- so you can work some *real* DX.

You can operate 6 bands -- 40, 20, 15, 10, 6 and 2 meters -- and run *full 1500 Watts* SSB/CW on all HF bands!

Features automatic band switching and uses highly efficient end-loading with its *entire length* always radiating. With 6 and 2 Meters thrown-in, you have ham radio's most versatile *rotatable* dipole!

Each HF band uses a separate, efficient end-loading coil wound on fiberglass forms with *Teflon*™ wire, and capacitance hats at each end (no lossy traps). 6 and 2 meters are *full-length* halfwave dipoles.

Built-to-last -- incredibly strong solid rod fiberglass center insulator and 6063 T-6 aircraft strength aluminum tubing radiator. Assembles in an afternoon. Adjusting one band has little effect on other bands.

MFJ-1775W, $249.95. WARC band version for 12, 17, 30, 60 Meters only.

MFJ 80/40/20 Meter *Rotatable Dipole*

A full legal limit efficient 80, 40, and 20-meter antenna that is shorter than a 20-meter dipole...

MFJ-1785
$\$369^{95}$
Ship Code E

Now you can operate the *low bands* on 80, 40, and 20 Meters with a true rotatable dipole that'll blend in with the sky!

Take advantage of the excellent propagation of the low bands during the low sunspot cycle.

This rotatable dipole lets you focus your signal in the direction you want so you can work some real DX! Small, low profile, inconspicuous.

The entire antenna length is used on all three bands. The MFJ-1785 is constructed of 6063 T-6 aircraft strength aluminum tubing with a solid center fiberglass insulator and handles 1500 Watts SSB/CW.

The 80 and 40 meter end-loading coils are wound on fiberglass forms with *Teflon*™ wire, and resonated with capacitance hats to ensure an extremely low-loss structure.

Balun included! 33 feet wide.

Requires a medium-duty rotator such as Hy-gain's AR-40 -- *See page 123 for more details.*

MFJ 20/15/10/6 Meter Rotatable Dipole

MFJ-1769
$\$279^{95}$
Ship Code D

MFJ-1769 is a full-size *high-effiency* 26', 20-15-10-6 Meter full legal limit rotatable dipole that is super low-profile -- almost invisible from across the street! 13-foot turning radius, tiny 9 lb. weight fits on small roofs, apartments and condos -- easily turned by a lightweight rotator like *Hy-Gain's*^(R) AR-303/500. Mount in the attic for antenna restrictions. *It's no wimp!* Bi-directional pattern reduces QRM/noise while maximizing your signal in the directions that you want -- work some real DX! Full 1500 Watts SSB/CW on all HF bands and 6-Meters.

MFJ 6 Meter *Add-On* Dipole Kit

MFJ-1761
$\$29^{95}$
Ship Code A

Adds 6-Meter capability to most yagis or rotatable dipoles. Can be mounted to driven element of most rotatable dipoles or single-band/multiband beams without affecting antenna's performance. Handles 1.5 kW. Adds less than 1 lb. weight.

Build your own wire antenna with these special MFJ parts . . .

Coax *Center* Insulator

MFJ-16B01, $19.95. Built-in SO-239 connector, super strong, UV resistant, custom injection molded, hang hole for inverted vees, wire tie points, lightweight.

Center Insulator for Dipole Antennas

MFJ-16G01, $29.95. Super-strong, UV resistant, cust-om injection molded, hang hole for multi-band dipole ends. Accepts 1/4 or 3/8' dia. coax.

End Insulator for Multi-Band Dipole Antennas

MFJ-16H02, $6.95. Set of two. Super-strong for multiband doublets. 7", (178 mm). Heavily serrated end insulators with 5/16" holes. Aluminum tube inserts in end holes for max loads.

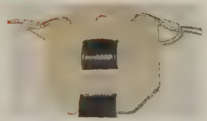
MFJ *Glazed Ceramic* Center/End Insulator

MFJ-16C01, $0.79 each.
MFJ-16C06, $4.56. Six Pack.

Authentic *glazed ceramic* antenna insulator. Extra-strong -- will not break with long antennas and will not arc over or melt even under full legal power. Molded ridges give extra-long path to prevent high-voltage breakdown. Smooth 5/16" wire holes prevent wire damage. Use as center or end insulator for dipoles, doublets, G5RVs, guy wires, vees.

LadderLine *Feedpoint End* Insulator

MFJ-16E01, $9.95. Super strong fiberglass, 450 Ohm ladder line *end* insulator. Double weave ladder line for superb stress relief. Built-in SO-239 coaxial connector.



Ladder Line *Center* Insulator

MFJ-16D01, $6.95. Super strong fiberglass, 450 Ohm ladder line *center* insulator. Double weave ladder line stress-relief. Strong wire tie points. Hang hole for inverted vees.

Ladder Line *Feedpoint Middle* Insulator

MFJ-16F01, $8.95. *Super-strong* fiberglass ladder line *middle* insulator. High-strength coax connection at midpoint. SO-239 connector, quadruple weave-through ladder line stress relief.

Tripod Anchor Foot Braces

MFJ-1905
$\$24^{95}$
Ship Code A

Hold your antenna tripod extra sturdy with these *new* stainless steel anchor foot braces. 3-pack has stainless hardware to fit existing MFJ or other tripod. Ground secure with 2 spike or single spike stakes (not incl.). For high winds or unlevel ground areas for safety. Fits any tripod leg up to 1½"dia. Drilling holes in tripod legs may be necessary.

5.5 ft. Heavy-Duty Antenna Mast Tripod

New!
Mast not included.
Adjustable and locking telescopic legs

MFJ-1921
$\$169^{95}$
Ship Code F

Use this *super heavy-duty antenna mast tripod* to hold masts 1.25 up to 2.5 inches in diameter. Adjustable thumb screws have protective tips.

Huge *8' diameter footprint* is great for holding massive antennas or big antenna masts sturdy, safely. Base minimum height is 50", can be set to a max height of 78".

Each leg has independent height adjustment from 0-18 inches with thumbscrew and locking pin -- *prevents slipping* -- use on ***uneven ground surfaces***. Each leg has non-skid rubber feet and can accommodate anchor foot braces, *see left*.

MFJ-1921's frame is constructed with black 1⅜" super strong steel pipe.

Collapses fast and easy to a minimum carrying size of just 7Wx69Hx7D inches. Weighs just 14 lbs. -- true portability.

Optional anchor foot braces, **MFJ-1905,** $\$24^{95}$. Set of three, *see left*.

MFJ Antennas for Restricted Areas

MFJ Super High-Q Loop™ Antennas

MFJ-1786
$449.95
Ship Code F

MFJ's *tiny* 36 inch diameter loop antenna lets you operate 10 through 30 MHz *continuously* -- including the WARC bands!

Ideal for limited space -- apartments, small lots, motor homes, attics, or mobile homes. Enjoy both DX and local contacts mounted vertically. Get both low angle radiation for excellent DX and high angle radiation for local, close-in contacts. Handles 150 watts.

Super easy-to-use! Only MFJ's super remote control has *Auto Band Selection™*. It auto tunes to desired band, then beeps to let you know. No control cable is needed. Fast/slow tune buttons and built-in two range Cross-Needle SWR/Wattmeter lets you quickly tune to your exact frequency.

All welded construction, no mechanical joints, welded butterfly capacitor with no rotating contacts, large 1.050 inch diameter round radiator -- not a lossy thin flat-strip -- *gives you highest possible efficiency.*

Each plate in MFJ's tuning capacitor is welded for low loss and polished to prevent high voltage arcing. Welded to the radiator, has nylon bearing, anti-backlash mechanism, limit switches, continuous no-step DC motor -- smooth precision tuning.

Heavy duty thick ABS plastic housing has ultraviolet inhibitor protection.

MFJ-1788, $499.95. Same as MFJ-1786 but covers 40 - 15 Meters continuous. Includes super remote control.

MFJ-1782, $409.95. Like MFJ-1786 but has fast, slow tune button control box.

MFJ-1780, $329.95. ***Box Fan Portable Loop*** is about the size (2x2') of a box fan, complete with handle. Covers 14-30 MHz. Remote Control box has fast/slow tunes.

MFJ Vertical for Antenna Restricted Areas

40, 20, 15, 10 Meters, Automatic BandSwitching

WARC Band Version Now Available!

MFJ-1795
$169.95
Ship Code E

Perfect for permanent or portable operation in antenna restricted areas. Hide behind trees, fences, buildings, in bushes -- only 7 to 10 feet tall (adjustable).

Low angle of radiation for DXing, omni-directional, handles 1500 watts PEP. Highly efficient end-loading. Entire length radiates. Low SWR.

Ground mounts with suitable ground such as MFJ-1901 *Ground-Coupled Antenna Base*, radials or ground rods. Roof mount with radials.

MFJ Compact Vertical Antennas

80/40/20/15/10/6/2/UHF

MFJ-2389
$299.95
Ship Code D

MFJ-2389 gives you 8 popular bands in one antenna!

You get a 1/4 Wave on HF, 80-6 Meters, a 1/2 Wave and 2.15 dBi gain on 2 Meters and a 5/8 Wave with 5.5 dBi gain on 440 MHz.

SWR is 1.5:1 or less and it handles 200 Watts PEP SSB, 150 Watts on 6M to 70CM on FM.

Super lightweight at less than 6 lbs. and just 8.5 feet tall, this antenna lets you mount in a restricted space environment such as an attic or balcony. Its ground radial system is built-in, so no fooling with counterpoise wires. Has SO-239 feedpoint connection.

HF/6M *Ground-Plane* Vertical

MFJ-2386
$229.95
Ship Code D

New!

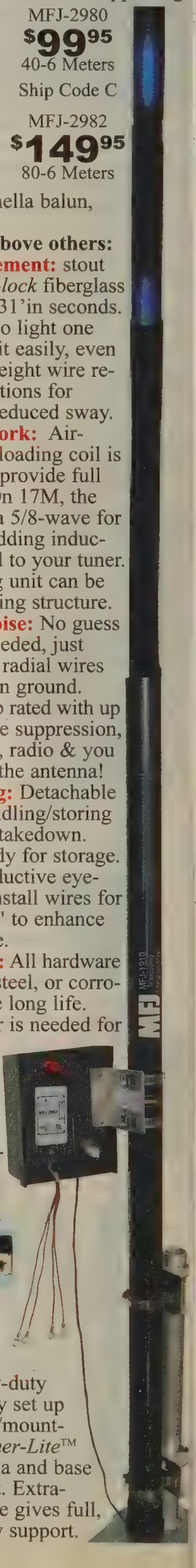
Broadband vertical antenna with no ground radials is super easy to assemble. No tuning! SWR < 1.6:1, 3.5-54 MHz. Receives 2.0 to 90 MHz. Handles 250W SSB PEP. At just 23.5' and only 7 pounds you can easily raise it up and down for stealth operation. Use 1-2 inch diameter mast. Wind survivability is 67 MPH. SO-239 for coaxial connection.

MFJ Portable Ground-Coupled Antenna Base

MFJ-1901
$109.95
Ship Code E

MFJ-1901 is a stable way to mount verticals and provides an effective ground. Place the base in a desired location, push legs firmly into the ground. Attach radials for more improved performance. Easily set-up or take down antennas for stealth operation. Stainless steel 2x2' base has folded and tapered stainless legs on corners. Strong enough to support 18 foot verticals. Two u-bolts included plus SO-239 and 3/8-24 threaded connectors.

31' *Feather-Lite™* 80-6M *Vertical* Antenna



MFJ-2980
$99.95
40-6 Meters
Ship Code C

MFJ-2982
$149.95
80-6 Meters

No trees, no problem! 31'self-supporting vertical sets up in minutes, collapses to only 3.8' -- perfect for RVs, vacations, field day, or as *grab-and-go* kit.

More than a simple "flagpole", this complete antenna system includes adjustable base-loading coil, Guanella balun, and counterpoise.

Why it stands out above others:

Rugged Vertical Element: stout 1 3/4"base supports *twist-lock* fiberglass sections--telescopes to 31'in seconds. Despite its length, it's so light one person can raise/lower it easily, even in wind. Special lightweight wire reduces weight in top sections for improved rigidity and reduced sway.

Base Loading Network: Air-wound high-efficiency loading coil is continuously tapped to provide full coverage 3.5-7 MHz. On 17M, the inductor configures as a 5/8-wave for added gain. On 20M, adding inductance improves the load to your tuner. *RF-isolated* base tuning unit can be attached to any supporting structure.

Portable Counterpoise: No guess work or ground rods needed, just connect 4 insulated 12' radial wires to tuning unit and lay on ground.

Guanella Balun: Lab rated with up to 30-dB common-mode suppression, balun prevents feedline, radio & you from becoming part of the antenna!

Easy Wire Handling: Detachable wire spooler makes handling/storing wire easy during setup/takedown. Attaches to antenna body for storage.

Add Wire: Use conductive eye-bolt at antenna top to install wires for an inverted "L" or a "T" to enhance low frequency coverage.

Corrosion Resistant: All hardware is aluminum, stainless steel, or corrosion protected to ensure long life.

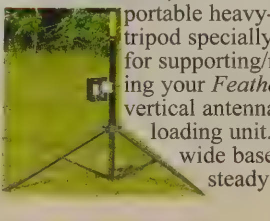
Low SWR: No tuner is needed for 80/75/60/40/17 Meters, radiator length is fixed at 31'. Operation on 30/20/15/12/10/6M requires an ATU.

Power Rating: MFJ-2982 components are safety-rated for 600 Watts PEP on SSB/CW.

MFJ-2980, $99.95. (right). Like MFJ-2982, but covers 40-6 Meters.

Optional Tripod Mounting:

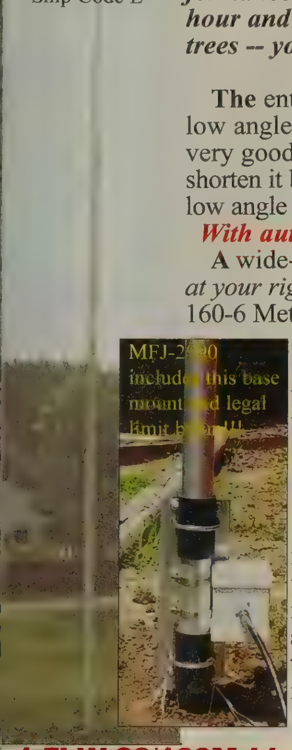
MFJ-1919, $89.95 portable heavy-duty tripod specially set up for supporting/mounting your *Feather-Lite™* vertical antenna and base loading unit. Extra-wide base gives full, steady support.



MFJ 160-6 Meter Antenna

Self-supporting 43 foot vertical -- no guy wires required . . . 1500 Watts . . . exceptional performance . . . low-profile . . . includes base mount and legal limit balun . . . assembles in an hour . . .

MFJ-2990
$359.95
Ship Code E



Operate all bands 160-6 Meters at full 1500 Watt with this self-supporting, 43 feet high performance vertical! It assembles in less than an hour and its low-profile blends in with the sky and trees -- you can barely see it from across the street.

Exceptional Performance

The entire length radiates to provide exceptional low angle DX performance on 160-20 Meters and very good performance on 17 through 6M. You can shorten it by telescoping it down for more effective low angle radiation on higher bands if desired.

With automatic tuner there's no fuss -- just talk!

A wide-range automatic or manual antenna tuner *at your rig* easily matches this antenna for all bands 160-6 Meters. No physical tuning adjustments on antenna -- simply put it up!

Optimized balun allows *direct coax feed* with negligible coax loss (typically less than 1/2 dB 60-6 Meters and less than 1 dB 160-80M with good low-loss coax).

Fully self-supporting, Extremely low wind loading, Very low visibility . . .

With just 2 square feet wind load, the fully self-supporting MFJ-2990 -- *no guy wires needed* -- has the lowest wind-loading and lowest visibility of any vertical antenna! Its 2-inch O.D. and .120 inch thick walled tubing bottom section makes it incredibly strong -- it'll stay up!

Weighs just 20 pounds -- you can easily put it up by yourself because its corrosion resistant *6063 aircraft aluminum* tubing and stainless steel construction make it light *and* super-strong.

Assembles in an hour

Easily assemble it in an hour! Ground mounting lets you completely hide antenna base in shrubbery. **Includes** MFJ-1900 high-strength antenna mount.

Requires ground system -- at least one radial. An extensive ground system gives better performance.

Great for Stealth Operation

Very low-profile antenna is perfect for stealth operation in antenna restricted areas. Hide it behind trees, fences, buildings, bushes. Use it as a flagpole.

Telescope it down during the day and sneak it back up at night . . . neighbors will never notice!

Quick and easy installation makes it great for portable and temporary operations: field day, camping, DXpeditions, vacations, hiking trips, etc.

MFJ All-band Ground Radial Kit

MFJ-1932
$34.95
Ship Code A

All-band ground radial system kit for the MFJ-2990 and other verticals requiring a radial system.

Convenient and effective, it provides the necessary return path for ground currents to reduce ground losses.

Consists of 2 sets of 4 radial wire assemblies giving a total of eight 14' radial wires. Each 1/4" ring lug for attaching to the antenna ground point. Each end of the radial wires has a solder lug for staking the wire end.

1.5kW 80/160M *high-efficiency* matching Network

MFJ-2910
$299.95
Ship Code B

MFJ-2910
80/160 Meter
Matching
Network

MFJ-2910 improves efficiency on 160 and 80 Meters for the popular 43-foot all band vertical antennas by eliminating SWR-related coax and unun mismatch losses. When fed with a 1:4 unun, the 43' antenna has a reasonable compromise SWR on 60-10 Meters. However, at 160/80M it is virtually impossible to match because of the low radiation resistance. If you are using low loss coax, you will lose much power in the coax and unun due to bad antenna mismatches. Installed at base of a 43' vertical, MFJ will significantly eliminate these losses and put 160/80 Meters back within the tuning range of the tuner inside the shack. Includes high-voltage insulated base tube, remote power injector with switch for 160, 80 Meters and off positions. Handles 1.5kW. Matching box mounted in a rugged, weather-resistant PVC housing, 3Wx16Hx3D inches.

600 Watts 80/160 Meter Matching Network

MFJ-2908, $249.95. Has all features of MFJ-2910, but handles 600 Watts on 80 and 300 Watts on 160M. 3Wx11Hx3D inches.

160 Meter Range Extender for 43' Verticals

MFJ-2904
$79.95
Ship Code B

Forty-three foot vertical antennas have become very popular in recent years. However, on 160 Meters, they have a very high reactance and high voltage at the antenna feedpoint. Tuning with a tuner results in maximum efficiency 80-10 Meters, but conditions at 160M present a major challenge for most tuners. To get around this problem, add the range extender to the base of the antenna to increase 160M matching capabilities. Reduces reactance and puts the antenna in range of the automatic or manual tuner. Potentially damaging high-voltage currents are reduced -- preventing damage to the tuner. 1.5 kW. Weather-resistant PVC, ceramic feedthru connectors for input/output. Shorting jumper connection when 160 Meters is not in use. 3½Wx3½Hx11D". Use MFJ-998RT/MFJ-994BRT or others.

MFJ-2902, $59.95. Like MFJ-2904, but 300 Watts, has 5-way binding posts for in/out connections. 3½W x3½Hx7D inches. Use with MFJ-926B/927/993BRT auto tuners or manual tuners.

Universal Vertical Tilt Base

MFJ-1903
$79.95
Ship Code B

A unique design allows this tilt base to fit most vertical antennas with or without a base bracket. Pre-punched hole makes it easy to mount. Fits Hygain's AV18VS/14VS/18AVQ/680/640/620/AV-6160, Cushcraft R8/R9, MFJ-1796/1798/2990, others with tube bases or masts up to 2¼" OD. Mount one side of tilt base to the mast and other to the base. *No climbing a ladder -- raise your antenna up/down easily before severe weather comes* -- just walk it up or walk it down. Makes any antenna system easy to work on by yourself! Ground radial holes also provided. 1/8" thick aluminum. Includes (4) 2¼" U-bolts, mast saddles and stainless steel nuts/bolts.

Ladder Line, Twin Lead, Copper Wire, Installation Rope

A. ***450 Ohm ladder line.*** 18# solid copper covered steel, insulated/spaced by heavy duty black polyethylene. Uniform spacing of conductors insures proper balance for balanced/dipole antennas.
MFJ-18H050, 50 Ft., $19.95.
MFJ-18H100, 100 Ft., $34.95.
MFJ-18H250, 250 Ft., $89.95.
871-7218, $0.35 a foot.

B. ***300 Ohm TV twin-lead.*** 20# stranded copper wire, insulated/spaced by black polyethylene. For dipole, j-pole, low power uses.
MFJ-18T050, 50 Ft., $22.95.
MFJ-18T100, 100 Ft., $44.95.
MFJ-18T250, 250 Ft., $99.95.
871-0020, $0.44 a foot.

C. ***Copper Antenna wire.*** Flexible, 7-strand, 14#, solid-copper wire. Strong/long-lasting.
MFJ-18G100, 100 Ft., $24.95.
MFJ-18G250, 250 Ft., $59.95.
871-0014, $0.25 a foot.

D. ***Nylon or Polyester Rope.*** Black nylon (A) or Polyester dacron (C) rope for wire antenna installations. UV resistant.
MFJ-19A100, $9.95. 100 feet.
MFJ-19A250, $18.95. 250 feet.
MFJ-19C100, $12.95. 100 feet.
MFJ-19C250, $29.95. 250 feet.

Multiple Bands in one *MFJ Antenna!*

*Full size performance . . . No ground system or radials**

1/2 Wave, 10-Band 80 to 2 Meters Vertical

This highly efficient end-loading 1/2 Wave vertical covers 10 bands: 75/80, 40, 30, 20, 17, 15, 12, 10, 6 and 2 Meters.

Requires no radials, no lossy traps. Features eff-icient end-loading.

Only 20 feet high and has a very manageable 7-foot footprint so you can easily mount it in a small area or patio.

MFJ-1799 is low profile so it can blend in with trees and the sky.

A high power air-wound choke balun eliminates feedline radiation. MFJ-1799 features automatic bandswitching, a low radiation angle, omni-directional and handles 1500 Watts PEP.

Built-to-last. Incredibly strong solid fiberglass rod and large diameter 6063 T-6 aircraft strength aluminum tubing are in the main structure. Efficient high-Q coils are wound on tough low loss fiberglass forms with *Teflon*^{R} wire.

7-Band SkyMaster™ 40-10M, 1kW Vertical

MFJ-1797, $329.95, *SkyMaster*™ vertical antenna covers all your favorite HF bands: 10, 12, 15, 17, 20, 30 and 40 Meters and handles 1000 Watts PEP. It is best these days to be inconspicuous and MFJ gives a super small footprint.

It's the perfect antenna for roof-mounting, ground mounting, off your patio deck, or to blend into the trees. It is super lightweight, just 7.5 lbs. with the whip and only 23.5 feet.

With the 14.5 foot whip you get more efficiency on 40 Meters. No ground or radials are needed. Super low profile without the whip.

Use mast size up to $1^{3}/_{4}$ inches.

MFJ-1797LP, $299.95. Like MFJ-1797 but without the 14.5 foot whip section. Less efficient and narrow bandwidth on 40M. Weighs 6 pounds, only 9 feet tall for super low profile.

1/2-wave, 10-Band No-radials Vertical

Operate 10 bands -- 75/80, 40, 30, 20, 17, 15, 12, 10, 6 and 2 Meters with this MFJ-1798 vertical antenna and get full size performance with no ground or radials!

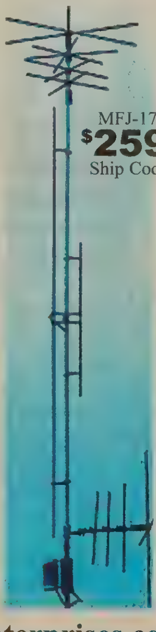
MFJ-1798
\$399^{95}
Ship Code F

Get very low radiation angle for exciting DX, automatic bandswitching, omni-directional coverage, low SWR. Handles 1500 Watts PEP SSB.

MFJ's unique *Elevated Top Feed*™ elevates the feedpoint all the way to the top of the antenna. Gets maximum radiation point high up in the clear where it does the most good -- easy to tune. 20 feet tall, 22 lbs.

1/2-wave, 6-Band No-radials Vertical

12 feet tall, Mounts Anywhere, 40 to 6 Meters



Only 12 feet high with a tiny 24 inch footprint! Mount anywhere -- ground level to tower top -- apartments and small lots.

Perfect for vacations, field day, DXpeditions, camping.

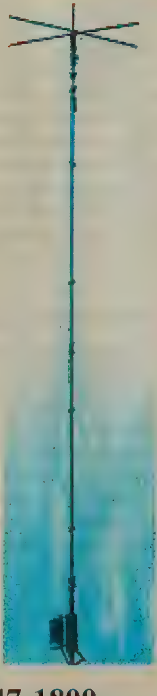
Efficient end-loading, no lossy traps. Entire length always radiating. Full size halfwave on 2/6 Meters.

High power *air-wound* choke balun eliminates feedline radiation. Adjusting one band has minimum effect on others. 40-20-15-10-6-2 M.

Automatic bandswitching, low radiation angle, omni-directional, handles 1500 watts PEP. Goes together in an afternoon.

MFJ-1796W, $259.95. WARC band version for 12, 17, 30, 60 Meters.

Verticals for 80/40/20 Meters



80/40 Meter Vertical

MFJ-1792
\$189^{95}
Ship Code F

MFJ-1792 is a high-performance 80/40 Meter vertical.

Full size quarter wave radiator for 40 Meters -- that's 33 feet of radiating power.

End-loading, unique built-in L-network for lowest SWR, low-loss fiberglass form, high strength 6061-T6 aluminum tubing, handles 1500 watts PEP.

***Requires** guying and radials, counterpoise, or ground screen.

80/40/20 Meter Vertical

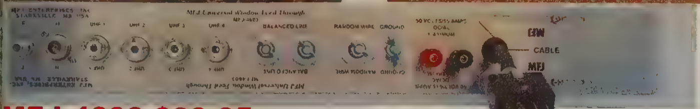
MFJ-1793, $209.95, like MFJ-1792 but has full size 20 Meter $^{1}/_{4}$ wave radiator also.

MFJ Antenna Window Feedthrough Panels

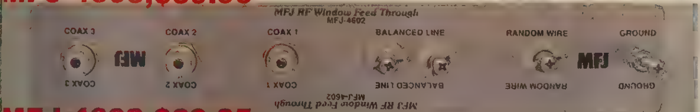
Weather-proof window feedthrough panels bring HF/VHF/UHF antennas, balanced lines, random wire antennas, ground, DC/AC power and Rotator/Antenna Switch Cables into your hamshack without drilling through walls!

Inside View

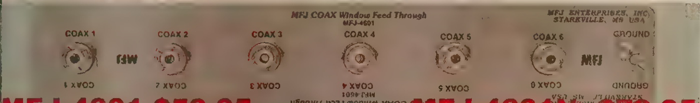
Outside View


MFJ Universal Window Feed Through
BALANCED LINE
RANDOM WIRE
GROUND
CABLE
MFJ

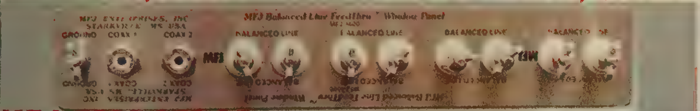
MFJ-4603,$89.95


MFJ RF Window Feed Through
MFJ-4602
COAX 3
COAX 2
COAX 1
BALANCED LINE
RANDOM WIRE
GROUND
MFJ

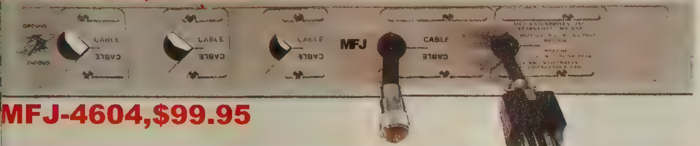
MFJ-4602,$69.95


MFJ COAX Window Feed Through
MFJ-4601
MFJ ENTERPRISES, INC.
STARKVILLE, MS USA
COAX 1
COAX 2
COAX 3
COAX 4
COAX 5
COAX 6
GROUND
MFJ

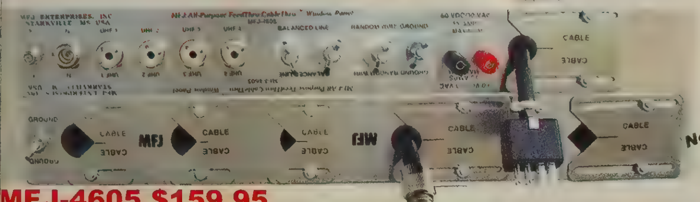
MFJ-4601,$59.95 **MFJ-4601N, $79.95**


MFJ Balanced Line Feedthru Window Panel
GROUND
COAX 1
COAX 2
BALANCED LINE
MFJ

MFJ-4600,$79.95


GROUND
CABLE
MFJ

MFJ-4604,$99.95


MFJ All-Purpose FeedThru/CableThru Window Panel
MFJ ENTERPRISES, INC.
STARKVILLE, MS USA
BALANCED LINE
RANDOM WIRE GROUND
CABLE
GROUND
MFJ

MFJ-4605,$159.95

MFJ Weather-Proof *Antenna Feedthrough Panels* mounts in your window sill. Lets you bring all your antenna connections into your hamshack *without* drilling holes through walls.

Simply place in window sill and close window. One cut customizes it for any window up to 48 inches. Use horizontally or vertically. High-quality pressure-treated ¾ inch thick wood has excellent insulating properties. Painted with a heavy coat of long-lasting white outdoor enamel paint. Edges sealed by weather-stripping. Seals and insulates against all weather conditions. Gives years of trouble-free service. All are $^{3}/_{4}$Dx3$^{1}/_{2}$Hx48W inches, except for MFJ-4605, which is $^{3}/_{4}$Dx7Hx48W inches.

Inside/outside stainless steel plates bond all coax shields together to ground connection. Stainless steel ground post brings outside ground connection inside.

Seven models to choose from:

MFJ-4603, $89.95. ***MFJ Universal Window Feedthru Panel.*** **Four** 50 Ohm *Teflon*(R) SO-239 coax connectors lets you feed HF/VHF/UHF antennas at full legal power limit.

A 50 Ohm *Teflon*(R) coax *N-connector* lets you use any antenna up to 11 GHz, including 450 MHz, UHF, satellite, moon bounce and 2.4/5.8 GHz Wi-Fi antennas.

A 75 Ohm, 1 GHz *F-connector* makes it easy to bring in television, Satellite, HD, cable TV and FM radio signals.

A pair of high-voltage *ceramic feedthru insulators* lets you bring in 450/300 Ohm balanced lines directly to your antenna tuner.

Has random/longwire antenna *ceramic feedthru insulator*.

5-way *binding posts* lets you supply 50 Volts/15 Amps DC/AC power to your outside antenna tuners/relays/switches.

Stainless ground post brings in ground connection, bonds inside/outside stainless steel panels together and drains away static charges.

MFJ's exclusive *Adaptive Cable Feedthru*™ lets you bring in rotator/antenna switch cable, etc. without re-moving connectors (up to 1$^{1}/_{4}$X1$^{5}/_{8}$ in). Adapts to virtually *any* cable size. Seals out rain, snow, adverse weather.

MFJ-4602, $69.95. ***Our most popular model.*** Three SO-239 *Teflon*(R) coax connectors let you feed HF/VHF/UHF antennas. High voltage *ceramic* feed-thru insulators bring 450/300 Ohm balanced lines into your hamshack. *Ceramic* feed-thru insulator for longwire or random wire, Stainless steel ground post brings ground in.

MFJ-4601, $59.95. ***For coax fed antennas.*** Has six high quality *Teflon*(R) SO-239 connectors for HF/VHF/UHF coax fed antennas and a stainless steel ground post. Handles full 1500 Watt legal limit.

New! MFJ-4601N, $79.95. Like MFJ-4601, but has N-type connectors.

MFJ-4600, $79.95. ***Balanced Line/Coax Feedthru Panel.*** Four sets of ceramic feedthrough insulators and two SO-239 connectors.

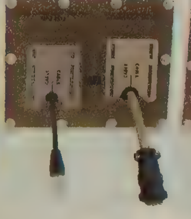
MFJ-4604, $99.95. ***MFJ Weather-Sealed CableThru™ Window Panel.*** Five *Adaptive Cable Feedthrus*™, two for connectors up to 1$^{1}/_{4}$x1$^{5}/_{8}$ inches and three for UHF/N size coax connectors. Adapts to virtually *all* cables used in ham radio. Seals out weather.

MFJ-4605, $159.95. ***All-Purpose FeedThru/CableThru™ Window Panel. Combines MFJ-4603 and MFJ-4604!*** Gives you every connection you'll ever need and more -- without drilling holes in wall!

MFJ *AdaptiveCable™* Wall Plates

6.95Wx12.1H inches

6.95Wx6H inches



3.25Wx 6H in.

MFJ-4614 (*Four Holes*)
$34.95
Ship Code A

MFJ-4612 (*Two Holes*)
$24.95
Ship Code A

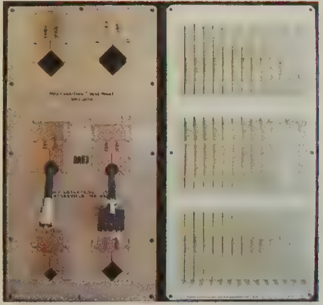
MFJ-4611 (*Single Hole*)
$14.95
Ship Code A

MFJ's exclusive weather-sealed *AdaptiveCable*™ *Wall Plates* let you bring nearly any cable -- rotator, antenna switch, coax, etc. -- through walls without removing connectors.

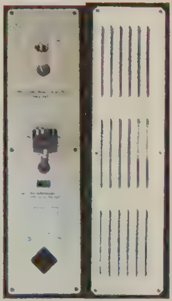
Pass cable connectors up to 1$^{1}/_{4}$x1$^{5}/_{8}$ inches. Sliding plate adjusts hole size to weather-seal virtually any size cable. Rubber grommet seals out rain, snow, other adverse weather.

Complete kit includes 18 gauge *stainless steel* plates for each side of wall, sliding plates, rubber grommets, weather stripping and mounting screws. Models for one, two and four cables.

Bring cables thru eave of your house



MFJ-4616
shown with vent (not included) it replaces.
Six Holes
$26.95
Ship Code A



MFJ-4613
shown with vent (not included) it replaces.
Three Holes
$14.95
Ship Code A

Replace your standard house eave/sofitt air vents with these *MFJ AdaptiveCable*™ *Air Vent Plates*.

Bring in coax, rotator, antenna switch, power cables, etc. of nearly any size up to 1$^{1}/_{4}$x1$^{5}/_{8}$ inches.

Sliding plates and rubber grommets adjust for virtually any cable size to seal out adverse weather, insects and varmints. Use existing vent hole, mounting screws and screw holes.

MFJ-4616, $26.95. Full-size. For six cables.

MFJ-4613, $14.95. Half-size. For three cables.

MFJ *QuickStudy*™ Ham Radio License Guide

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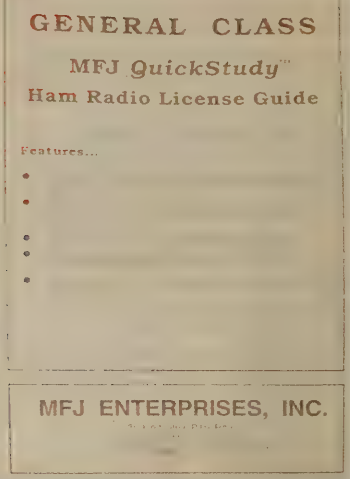

GENERAL CLASS
MFJ QuickStudy™
Ham Radio License Guide
Features...
MFJ ENTERPRISES, INC.

MFJ-3211-*Technician* **MFJ-3213-*General*** **MFJ-3215-*Extra***

MFJ-3211
MFJ-3213
MFJ-3215
$12.95 each
Technician, General, or Extra Class
Ship Code A

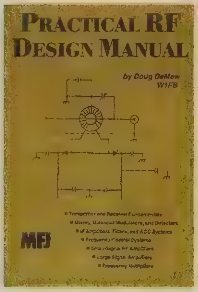
Use MFJ's *QuickStudy*™ License Guide and MFJ guarantees that you'll pass the written exam on your very first try or you get your money back*. See above.

What is MFJ's *QuickStudy*™ concept? The objective is to pass the exam and get your license with a minimum amount of study time so you can start enjoying the hobby right away.

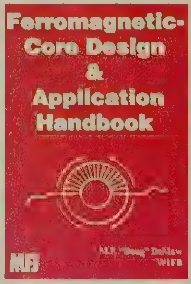
Each MFJ license guide has all of the exact questions given on the written exam. Each question on the exam has a multiple choice answer. But why take the extra time to study the wrong answers? It'll just add to the confusion and doesn't help you pass the exam. ***MFJ gives you only the correct answers.*** When you take the exam the answer jumps out at you -- no confusion, nothing to clutter the mind. It's an instant correct answer because you only studied the right answer.

Study the material thoroughly a few times, pass the test and enjoy the friendship of ham radio -- it couldn't be simpler.

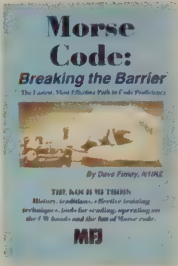
MFJ *QuickStudy*™ License Guides are available for all classes Technician, General and Extra Classes. These books only cover the written part of the test, not the five word-per-minute code exam. **MFJ-3211, *Tech*, MFJ-3213 General, MFJ-3215, Extra.**


PRACTICAL RF DESIGN MANUAL
by Doug DeMaw W1FB
MFJ

MFJ-3507, $19.95. The late Doug DeMaw, W1FB, gives a wealth of info on circuits, including transmitter and receiver fundamentals, mixers, more.


Ferromagnetic-Core Design & Application Handbook
MFJ

MFJ-3506, $19.95. Legendary textbook from the late Doug DeMaw, W1FB, emphasizes the practical aspect of ferromagnetic core material.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Breaking the Barrier
By Dave Finley, N1IRZ
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MFJ-3400, $19.95. Avid CW enthusiast David Finley, N1IRZ gives the first book to detail the Koch method and training techniques for fastest code proficiency.

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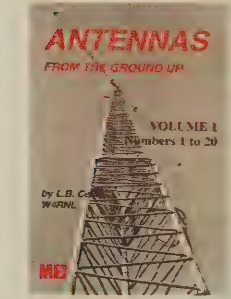
See *www.mfjenterprises.com* for more information on each DVD.


ANTENNAS
FROM THE GROUND UP
VOLUME 1
Numbers 1 to 20
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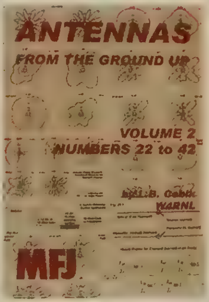
MFJ-3306, $19.95. Volume 1 is a practical level *antenna from the ground up* book by *L.B. Cebik, W4RNL*. Concise, clear chapters.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FROM THE GROUND UP
VOLUME 2
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by L.B. Cebik W4RNL
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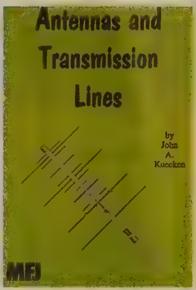
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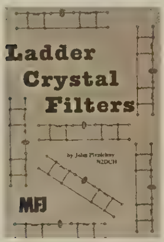
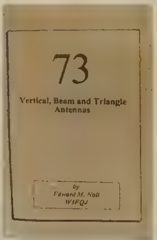
MFJ-3305, $19.95. 320 pages, 37 short concise chapters. Underlying theory, powerful antenna-making techniques, special antenna projects and more!


Ladder Crystal Filters
by John Pivnichny N2DCH
MFJ

MFJ-3509, $19.95. Ladder Crystal Filters. Generous references, John Pivnichny, N2DCH.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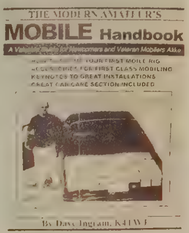
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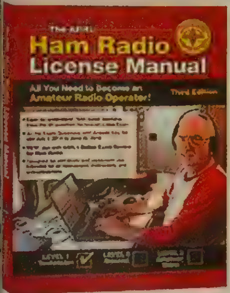
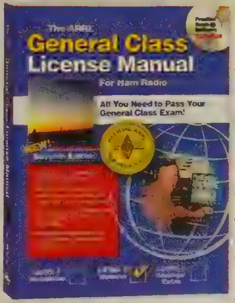
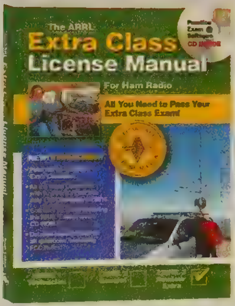


ARRL-5977, $29.95. ALL you need to become an Amateur Radio Operator! Every page presents information you will need to pass the exam and become an effective operator. Easy-to-understand "bite-sized" sections. Use this book to pass the 35 question Technician license test. Includes the latest question pool with answer key, for use through June 30, 2019. The ARRL Exam Review is now online for convenient study. Designed for self-study and classroom use. Intended for all newcomers and instructors, and school teachers. #0222


General Class License Manual
For Ham Radio
All You Need to Pass Your General Class Exam!

ARRL-5919, $29.95. Upgrade to General and enjoy the thrill of the world-wide HF bands! All you need to pass your General class exam! All the exam questions with answer key, for use to June 30, 2015. Software included featuring the ARRL Exam Review CD-ROM. Detailed explanations for all questions, FCC rules for when you upgrade and get on-the-air. Pass the 35-question General Class exam -- The exciting world of HF, DX and meeting new friends all around the world awaits you! #8119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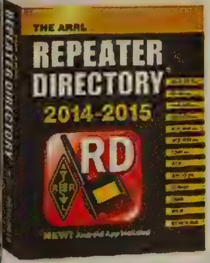
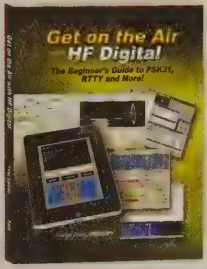


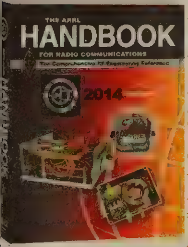
ARRL-5975, $10.95. The best directory of frequencies for the thousands of repeaters around the country. Includes popular D-Star and APCO-25 repeaters. Also has handy references for operating practices, emergency handling and more. Pocket-sized (3.75Wx5.25 inches) directory lets you take it with you on the run, in the field or on business or vacation. Don't forget to throw it in the briefcase or place it in your glove compartment when you travel! #2575

Get on the air with HF Digital!


Get on the Air HF Digital
The Beginner's Guide to PSK31, RTTY and More!

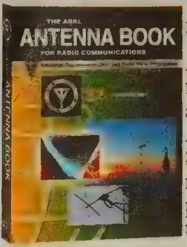
ARRL-5916, $22.95. By Steve Ford, WB8IMY. Everything you need to get started in digital radio applications. You'll understand how to set up and operate your equipment and software, and make the best use of your HF digital station. It's your guide to understanding the most active HF digital modes in use today. Expanded setup information, varieties of PSK, Packet radio, APRS, D-STAR, digital applications in public service, emergencies and much more! #6016

ARRL HANDBOOK



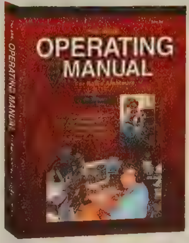
ARRL-5934, $59.95. The ARRL Handbook is the most comprehensive guide to radio electronics and experimentation. This book is part reference and part applied theory. It is filled with practical treatments of basic electronic fundamentals, RF design, digital and software radio technology, and antenna construction. A fully searchable CD-ROM is included. You get fundamental theory, practical design and principles, antenna systems and radio propagation, equipment construction and maintenance and most importantly, station assembly and management of your ham station. A handy equipment testing and troubleshooting guide is also included. #6634

ARRL ANTENNA BOOK



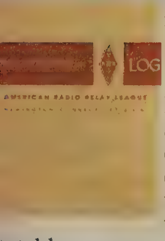
ARRL-5948, $49.95. The ultimate reference for Amateur Radio antennas, transmission lines and propagation. The ARRL Antenna Book is THE SOURCE for current antenna theory and a wealth of practical, how-to construction projects. Features antenna designs enhanced by the latest advances in computer modeling. Design, build and install any type of antenna -- from a very simple wire to specialized or highly optimized arrays. Fully searchable CD-ROM included and contains additional utility programs including YW, TLW, HFTA, Range-Bearing, ArrayFeed1 and EZNEC-ARRL antenna modeling for Windows. Requires Microsoft Windows 98 or later for PCs. #6948

OPERATING MANUAL



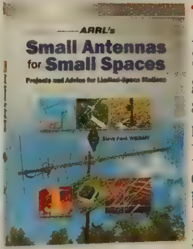
ARRL-5960, $29.95. The ARRL Operating Manual is the most complete book about Amateur Radio operating. It was written to help guide you through the dozens of ways hams communicate with each other. Contains info that every ham needs to explore new activities, find references and more. Contains information about Amateur Radio, VHF/UHF-FM Repeaters, Emergency Communications, Traffic Handling, DXing, Contesting, HF Digital Communications, Image Communications, Amateur Satellites, FCC Rules and You, Operating Legally, Safely and Appropriately, Operating Awards and Callsign Prefix Listings, Antenna Bearing Maps, Abbreviations and more. #5965

ARRL Log Book



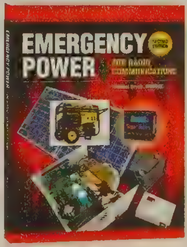
ARRL-5950, $7.95. You got to have this detailed ARRL log book for your operating station! It is clean, well laid out and ready to make your detailed entries. Keep it close nearby to log all of those contacts you're going to make in ham radio! 52 total log pages with room for 25 contacts per page. You get 1,300 total log entries! The perfect sprial bound ARRL log book is just 8.5x11 inches so fits easily at your operation position on your desk. #1250

Small Antennas for Small Spaces



ARRL-5993, $22.95. by Steve Ford, WB8IMY. A great resource for radio amateurs who live in apartments, condos or on small lots. Antenna restrictions destroying your love for ham radio? You get the ideas you need to fool those inspectors every time. Filled with practical advice to find the right antenna design to fit your space. Get on air despite your environment and have fun trying new and fun antenna ideas. #8393

Emergency Power for Radio Communications



ARRL-5953, $24.95. by Michael Bryce, WB8VGE. Explore the various means of electric power generation, from charging batteries, to keeping the lights on. Covers the foundation of any communications installation -- the power source. Prepare for the worst, does the advanced thinking for you and has you ready for any natural disaster so your radio and other electronic equipment is still operating in the face of disaster. #6153

- **43' Vertical Antennas . . . Pages 79, 131**
- **43' Vertical Range Extender . . . 79, 131**
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  - In-Rush Current Protection...Pg. 123
  - Line Monitor ... Pg. 28
  - Multiple RFI filter outlets...Pg 28
  - Remote Outlets . . . Page 28, 54
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  - HT...Pg. 58-61
  - QRP transceiver...Pg. 49-51
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- **Active Antenna**...Pg. 36, 47, 138
- **Adapters** Audio cable...Pg. 35, 36, 57
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  - Parallel printer to USB...Pg. 52
  - RS-232 to USB...Pg. 52
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Select MFJ *hard-to-find* Components for your Homebrew Projects

Air Variable Capacitors

Figure	Part No. #	Price	Cap. pF	VRMS	Gap	Plates	Dimensions
A	282-2005	$23.85	16-208	1000	.032"	50	1.4Wx1Hx3D in.
A	282-8700	$14.95	10-26	1500	.080"	18	1.4Wx1Hx2.8D in.
B	282-2010	$17.25	2-10	640	.016"	2	1.4Wx1Hx1.7D in.
B	282-2012	$16.02	5-51	1000	.032"	13	1.4Wx1Hx1.1D in.
B	282-2150	$18.90	6-154	640	.016"	20	1.4Wx1Hx1.3D in.
C	282-2006	$18.51	12-313	640	.016"	40	1.4Wx1Hx1.7D in.
D*	282-5050-1	$19.62	5-67	1200	.045"	15	1.2Wx1.3Hx1.3D in.
D*	282-5160	$17.97	6-180	350	.010"	15	1.2Wx1.3Hx1.3D in.

* Items D are broadcast style variables and are used in MFJ Analyzers and Transceivers. A 8:1 Vernier drive is built into the capacitor.

High Voltage Air Variable Capacitors

Figure	Part No. #	Price	Cap. pF	VRMS	Gap	Plates	Dimensions
A	282-2007-1	$30.94	10-125	3.5 kV	.120"	27	2.5Wx3.6Hx6D"
A	282-2018-1	$35.68	10-250	1.5 kV	.045"	37	2.5Wx3.6Hx6D"
A	282-2008-1	$53.68	10-250	3 kV	.120"	53	2.5wx3.6hx10.8d"
B	282-2009-1	$61.64	75-500	1.5 kV	.075"	75	2.5wx2.6hx10.8d"
C*	282-2015	$53.52	10-300	3.5 kV	.120"	79	2.5wx2.6hx10.8d"
D*	282-2020	$70.56	40-493	1.5 kV	.045"	35	3.5Wx4.5Hx6D"
D*	282-2028	$100.08	50-996	1.5 kV	.045"	72	3.5Wx4.5Hx9.6D"
E*	282-2016	$69.95	12-67	1.5 kV	.045"	56	2.5wx3.5hx6D"
E*	282-2017	$89.95	18-136	1.5 kV	.045"	112	2.5wx3.5hx10.8d"
D*	282-2026	$100.08	50-916	1.5 kV	.045"	72	insulated rotor sections

Item C is a differential capacitor, as used in the MFJ-986 antenna tuner. Items D are dual-gang capacitors, capacitance specified is total capacitance. Items E are butterfly tuning capacitors. Used in MFJ loop tuners, have no rotating contacts, super low losses.

Amplifier high-voltage Variable Caps

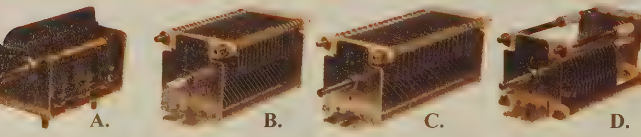


Figure	Part No. #	Price	Cap. pF	VRMS	Gap	Plates	Dimensions
A	282-2113	$26.19	20-823	800 V	.017"	23 x 3	1.8Wx1.8Hx3.3D"
B	282-2112-1	$36.52	20-250	2.5 kV	.075"	37	2.8Wx2.6Hx5D"
B	282-2572-1	$46.18	20-405	1.5 kV	.045"	37	2.8Wx2.6Hx4D"
B	282-2573-1	$57.34	25-800	1.1 kV	.030"	53	2.8Wx2.6Hx4.5D"
C	282-2570	$51.68	20-171	3.5 kV	.120"	37	2.8Wx2.6Hx7D"
D	282-3700	$39.95	15-176 7-23	2.5 kV	.075"	31	2.8Wx2.6Hx6D"

Used in Ameritron high power linear amplifiers. Items B have delrin insulated shaft. Item D has two capacitance sections.

Shaft coupler for rollers, caps, switches

725-3105-1, $0.95.
3/4 Diameter by 1¼" length, Nickel plated brass Shaft Coupler for 1/4 inch diameter shaft has two 10-32 hex socket set screws.

MFJ Knobs, Pointers and Ball Drives

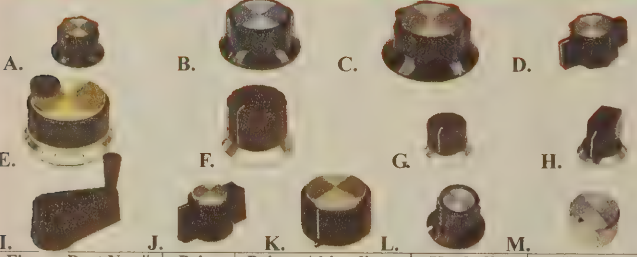


Fig.	Part No. #	Price	Pointer/skirt diam.	Knob dia.	Height
A	760-0035	$1.25	1 inch	11/16 inch	9/16 inches
B	760-0125	$2.80	1½ inches	1¼ inches	¾ inches
C	760-2281-1	$3.50	2 inches	1⅝ inches	⅞ inches
D	760-0550	$3.00	1½ inches	1 inch	¾ inches
E	760-0275B	$9.95	2⅛ inches	1⅞ inches	1⅜ inches
F	760-0277	$2.35	1⅞ inches	1 1/16 inches	1 inch
G	760-0278	$1.95	⅞ inches	¾ inches	11/16 inches
H	760-0276	$1.95	⅞ inches	13/16 inches	⅝ inches
I	760-2409	$4.95	1¾ inches	¾ inches	1½ inches
J	760-0176	$1.95	1¼ inches	11/16 inches	¾ inches
K	760-0177A	$1.78	1⅜ inches	1¼ inches	⅞ inches
L	760-0033	$1.25	13/16 inches	7/16 inch	⅝ inches
M	760-1233	$1.25	1 inch	1 inch	⅝ inches

MFJ Knobs are made of the highest quality heat and impact-resistant phenolic resin. Shaft holes fit 1/4" round shaft. Knobs have metal inserts. Supplied with set screws.

Ameritron Edge-wound AirRoller Inductor

Silver Plated!
Edge-Wound!

404-1032, $140.00. Flat wire, edge-wound, *high power* air roller inductor. Silver plated Cu coil, silver plate contact discs and contact shaft. Heavy duty 1/4" thick fiberglass frame. 16 uH, 31 turns, 2½" coil dia., 1/4" round shaft, 3" shaft length. 2¾Wx3⅛Hx8D". Used by Ameritron ATR-30, 3kW PEP SSB.

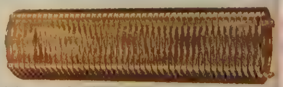
MFJ AirCore™ Roller Inductors

MFJ's exclusive *super heavy duty AirCore*™ Roller Inductor has an air core that can't burn up! You get ultra high-Q, the lowest loss, highest efficiency and highest power handling of any roller inductor in ham radio. MFJ's exclusive *Self-Resonance Killer*™ keeps potentially damaging self-resonances away from your operating frequency. Large, self-cleaning wiping contact gives excellent low-resistance connection without contact arcing or burning. A solid 1/4 inch brass shaft with self-align bearings gives smooth non-binding rotation. 12 gauge tin-plated copper wire. Silver plated contact wheels and shaft. Fiberglass frame.

Figure	Part No. #	Price	L. uH	Turns	Coil Dia.	shaft size	Dimensions
A	404-1052	$59.00	33	43	2"	3½"	3Wx3Hx7½D"
B	404-1056	$62.65	44	57	2"	3"	3Wx3Hx9¼D"
C*	404-1060	$53.60	22	31	2"	2½"	3Wx4½Hx7½D"

*C item has 1/4" round phenolic tuning shaft, has no "self-resonance-killer". A and B have 1/4" round brass tuning shaft.

MFJ *Air-Wound* Coils



MFJ *air-wound* coils are constructed with a solid rigid round acrylic rod and tin-plated solid copper wires embedded into the acrylic rod. They are super strong and superbly crafted. MFJ winds them tough so they stay wound. Select a special MFJ *air-wound* coil for your mobile and portable antennas, antenna tuners, amplifiers and other projects.

Part No.	Price:	Inductance	Coil length	Coil Diameter	Turns per Inch	Wire size (AWG)
404-0811	$22.95	70 uH	9½ in.	1¾ in.	10	14
404-0600	$37.95	44 uH	12 in.	2 in.	6	10
404-0669	**$37.95**	**79 uH**	**12 in.**	**2 in.**	**8**	**12**
404-0700	$37.95	77 uH	12 in.	2 in.	8	10
404-0008	**$22.95**	**159 uH**	**10 in.**	**2½ in.**	**10**	**16**
404-0024	$37.95	35 uH	11 in.	3 in.	4	10
404-0009	**$22.95**	**230 uH**	**10.5 in.**	**3 in.**	**10**	**16**
755-4001-1	$3.00	Designed to clip on air-wound coil for wire size up to AWG 12. 1/4" wide silver plated contact has set screw to secure. Contact socket for banana plug.				

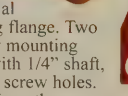
MFJ high power RF rotary switches

Fig.	Part No. #	Price	Pos's	Pole	Sect.	index deg	Contact	dielectric VAC	material	dia.
A	500-2026	$24.48	12	1	1	30	9 Amps	1500	glass epoxy	1.44"
B	500-2038	$43.68	6	1	1	30	9 Amps	1500	ceramic	1.88"
C	500-2027	$58.32	6	2	2	60	9 Amps	1500	ceramic	1.88"
D*	500-2811	$45.60	6	2	1	30	9 Amps	1500	ceramic	1.88"
E*	500-2135	$85.40	6	4	3	30	9 Amps	1500	ceramic	1.88"
F*	500-3557-1B	$147.58	6	4	2	20	17 Amps	3000	ceramic	2.81"
B	500-2017	$61.95	6	2	1	30	9 Amps	2000	ceramic	1.88"

MFJ high-voltage switches have 3/8-32 bushing and 1/4 inch round shaft. *D, E, and F are switches that are specially designed for amplifier band switching.

Vernier Reduction Ball Drive

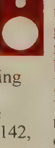
729-0142-1, $11.92



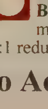
6:1 Tuning Ratio. Used in Ameritron amplifiers and tuners. Dial plate mounting flange. Two pre-tap pointer mounting holes, mates with 1/4" shaft, has pre-tap set screw holes. ¼" shaft, 3¼"Length.

Knob Pointers

726-0227R, $1.55
Red, 1¼" Length, matches 2" tuning knob.



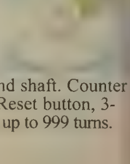
726-0230R, $1.25
Red 1" Length, matches 1½" tuning knob.



Both pointers are made to fit 729-0142, 6:1 reduction drive.

Turn Counter Set

MFJ-TC11, $14.95



Set includes counter module, 2 gears and mounting bracket. Driving gear fits 1/4" round shaft. Counter ratio is 3:1. Reset button, 3-digits, counts up to 999 turns.

Select MFJ *hard-to-find* Components for your Homebrew Projects

Power Supply, Amplifier Transformers

These transformers are for building power supplies and amplifiers. 406-3800 is designed for linear power supplies, that is capable of delivering current up to 30 Amps at 13.6 VDC. 406-1109-2C is designed for a single 3-500Z tube, 1000 Watts HF Amplifier. Has buck/boost winding. Can be used as a replacement transformer for Heathkit SB-1000, AL-80A.

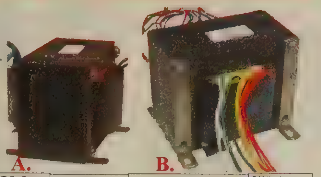


Fig.	Part No. #	Price	Pri. Voltage	SEC Voltg	Current	Dimensions	Weight
A	406-3800	$34.95	120V	18V	30A	4Wx4Lx$3\frac{3}{4}$H”	11 lbs.
B	406-1109-2C	$180.00	90-140, 205-250 w/buck boost winding	1. 1047Vac 2. 22 Vac CT 3. 5.2Vac CT	.1 Adc 1.5 Adc 15 Aac	6Wx6Lx$5\frac{1}{4}$H”	26 lbs.

Amplifier Power & Filament Transformers

Specially designed for our most popular HF amplifiers. Has unique buck-boost winding to adapt to low or high line voltage conditions.

Use of electrical silicone steel lamination makes these transformers highly efficient, resulting in low loss and producing less heat. Well constructed for low noise and coated with varnish. 110/220 VAC. Usable for 50 or 60 Hz.

Fig.	Part No. #	Price	Pri. (Volt)	Sec. (Volt)	Dim./Applications	Weight
A	406-1532	$105.50	110/220 w/ buck-boost	1500V@.5A 12V@1A 6.5V@16A	5Wx$4\frac{1}{4}$Hx$6\frac{1}{4}$D 811A 4-tube amplifier	17 lbs.
B	406-1572	$142.60	110/220 w/ buck-boost	900V@.5A 12V CT@1A	6Wx$5\frac{1}{4}$Hx$5\frac{1}{4}$D 572B,4-tube amp	23 lbs.
B	406-1248-1	$247.00	110/220 w/ buck-boost	2250V@.5A 22VCT@1.5A 12.8V@5A	6Wx$7\frac{1}{2}$Hx$5\frac{1}{4}$D 3CX800A7 2-tube amp	33 lbs.
C	406-1418-1D *Hypersil(R)*	$403.00	110/220 V	2570 Vac@.8A	8Wx7Hx7D 3CX1500A7 3CX1200A7/Z7 2x3-500G amps	32 lbs.
D	406-1419-1J	$74.00	110/220 V	5.6V@30A 14V@2A	$2\frac{1}{2}$Wx3Hx$3\frac{3}{4}$D 3-500Z filament	5 lbs.
D	406-1419-2J	$74.00	110/220 V	7.7V@21A 14V@2A	$2\frac{1}{2}$Wx3Hx$3\frac{3}{4}$D 3CX1200A7 Filam	5 lbs.
D	406-1419-3J	$74.00	110/220 V	5.6V@15A 14V@2A	$2\frac{1}{2}$Wx3Hx$3\frac{3}{4}$D 3CX1500A7 Filam	5 lbs.

Non-Inductive Resistors *. . . Ideal for Dummy Loads*

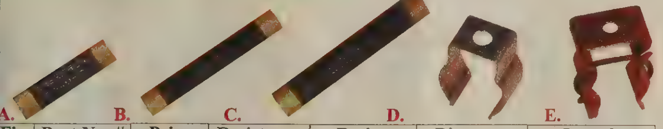


Fig.	Part No. #	Price	Resistance	Rating	Diameter	Length
A	113-1220	$22.50	22 Ohm	35W cont.	3/4 inches	2.5 inches
A	113-1350	$22.50	35 Ohm	35W cont.	3/4 inches	2.5 inches
A	113-1450	$15.00	45 Ohm	35W cont.	3/4 inches	2.5 inches
A	113-2100	$22.50	100 Ohm	35W cont.	3/4 inches	2.5 inches
B	115-1500	$20.16	50 Ohm	90W cont.	3/4 inches	5 inches
D	119-1500	$32.31	50 Ohm	200W cont.	1 inch	6 inches
D	755-3080	.75	Terminal clip for 3/4” dummy load resistor, requires 2 per resistor.			
E	755-4100	2.76	Terminal clip for 1” dummy load resistor, requires 2 per resistor.			

Ameritron sells Eimac(R) Tubes

Ameritron sells *Eimac(R)* tubes for amateur radio, broadcast and industrial uses. *Call for a quote!*

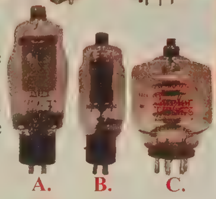
A. **3CX800A7**
B. **3CX1200D7**
C. **3CX1500A7**

811A, 572B, 3-500Zs . . .

Don't just buy any untested tube that can damage your amp. Buy Ameritron *fully tested and warranteed* tubes.

A. **380-0811A, $24.95, 811A tube.**
B. **380-0572B, $69.95, 572B tube**
C. **380-0500GT, $219.95, Taylor 3-500ZG tube**

Match pairs are also available.



Tube Sockets

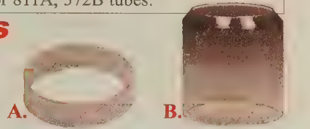
Fig.	Part No. #	Price	Fit Tube Type	#pin	Manufacturer PN/Description
A	50-0080-1	$32.20	3-500Z, 3CX1200A7	5	custom made glass epoxy socket
B	625-8199	$2.49	6LQ6 or equivalent	9	PCB mount pins
C	625-8731-1	$35.00	3CX1500A7/8877	7	Ceramic
D	625-8800	$50.40	3CX800A7	11	EF Johnson 124-0311-100
E	625-8811	$3.20	811A, 572B or equiv.	4	4-pin ceramic

Tube Plate Caps & Heatsinks

Fig.	Part No. #	Price	Description
A	750-1800	$5.95	Plate cap for 3-500Ztubes. Finned aluminum heat sink with set screw. $\frac{3}{4}$” dia. by $\frac{9}{16}$” thick.
B	750-0323	$7.98	Plate cap for 3-500Z tubes. Finned aluminum heat sink with set screw. $1\frac{1}{4}$” dia. by $\frac{5}{16}$” thick.
C	755-3626	$8.28	Plate clip for 3CX1500A7/8877 tube.
D	755-6811	$2.50	Ceramic plate cap for 811A, 572B tubes.

Tube Glass Chimneys

A. 391-1500, $25.62
Chimney for 3CX1500A7/8877 tube
B. 391-3500, $35.47
Chimney for 3CX1200A7 and 3-500Z tubes.



AmplifierPlates and Filament Chokes

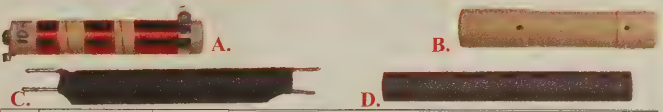


Fig.	Part No. #	Price	Description
A	10-15197	$20.00	Complete plate choke covers 1.8-30 MHz, includes WARC bands, 225 uH, handles 1.5A, 4 kV. Wound on 1”dia. x $5\frac{5}{8}$” long glazed ceramic form. Used in Ameritron amps.
B	719F-7380C	$7.95	Glazed ceramic plate choke form. 1” dia. by 5” long. Both ends tap for 1/4”-20 screw.
C	10-15115-1	$19.95	Complete broadband filament choke. Use for 3-500Z, 3CX800A7, 3CX1200A7 and 3CX1500A7 tubes. Handles 30A, covers 1.8-30 MHz. 12 gauge enamel wire, bifilar wound on .5” dia. by 4” long ferrite rod.
D	412-0109	$9.00	Filament choke ferrite rod. 5” dia. by 4” long. Used in 10-15115-1.

Feedthru Insulators

606-1006, $3.95
Ceramic Feedthrough insulator comes complete with hardware. 3/4” diameter x$1\frac{1}{4}$”. Fits $\frac{7}{16}$” dia. chassis hole.

A. 606-0014, $2.50. 5-way binding post, black, 30 Amp, insulated.
B. 606-0013, $2.50. 5-way binding post, red, 30A insulated.
C. 606-0004, $1.25. 5-way binding post, black, 15 Amp.
D. 606-0003, $1.25. 5-way binding post, red, 15Amp.

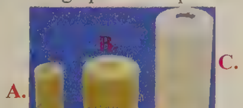
HT Adapter Cables

Release the strain on your HT antenna connector with these adapter cables. Choose SMA or BNC. Flexible, mini coax, 3 feet.

A. MFJ-5612S, $14.95. SMA Male to SO-239 adapter cable.
B. MFJ-5612SF, $14.95. Female SMA to SO-239, for Wouxun/Baofeng handheld radios.
C. **MFJ-5612B, $14.95.** BNC Male to SO-239 adapter cable.

Insulating Spacers

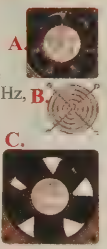
These spacers are used to properly isolate your dummy load resistor from the chassis. Withstands high power/frequencies.

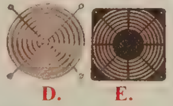


A. 719C-0500C, $0.50. Ceramic spacer, 1/4”OD, 1/2” long, 6-32 threaded both ends.
B. 719C-0500C-2, $2.50. Same as A except 1/2” OD.
C. 718D-1000, $1.71. Delrin spacer, 1/2” dia. by 1” long, 8-32 threaded holes on both ends.

Cooling Fans and Blowers

High output box fans and blowers are ideal for cooling amplifiers.





A. 410-3583, $18.85. 80x80x38.5 mm, 1800 RPM, 28 CFM, 30 dBA noise level, sleeve bearing, 120 VAC, 60 Hz, w/ 14” wire lead.

B. 410-4584, $.90. Fan guide.

C. 410-3138, $43.06, high quality box fan by EBM, metal housing with metal impeller, extremely quiet 120x120x38.5 mm, 61 CFM, 28 dBA noise level, sleeve bearing, 120 VAC, 60 Hz, wire terminals. Fits AL-80A/B.
C. 410-2132, $43.06. Like 410-3138, for 12VDC.

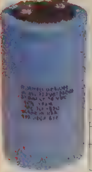
D. 410-4600, $3.34, Metal *Fan Guards.*

E. 410-4586, $.99, plastic.

F. 410-3737, $168.71. EBM Blower, G2S097-DB61-08, 110 VAC, 27 CFM, 38 dBA noise level. Wire leads. Flange mount $4\frac{5}{8}$Wx$4\frac{1}{2}$H x$\frac{3}{16}$D inches, fits AL-1500/1200/82 amplifiers.

Select MFJ *hard-to-find* Components for Repair/Homebrew Projects

Amplifier Power Supply Electrolytic Caps



High capacitance, computer grade aluminum can electrolytic capacitors. Long life, low ESR and can handle high ripple currents. Themal-Pak extended cathode foil construction assures cool operation. Great choice for high-capacitor amplfiier, power supply and energy storage application. 10-32 screw terminals.

Part No. #	Price	Value (uF)	WVDC	Ripple (I)	Size (DxL) inches
270-6210-7	$13.53	270 uF	450V	1.5A	$1^{3}/_{8}$x$2^{1}/_{8}$
270-6380-7	$21.60	470 uF	450V	2.4A	$1^{3}/_{8}$x$3^{1}/_{8}$
270-8270-2	$33.50	27000 uF	75V	9.0A	2x$4^{5}/_{8}$

Electrolytic Capacitors

Can-type electrolytic capacitors ideal for amplifiers and power supply applications. They have snap-in PCB terminals.

Part No. #	Price	Cap uF	WVDC	D x L (in.)
270-6220-7B	$5.44	220	400 V	$1^{3}/_{16}$x$1^{5}/_{8}$
270-7100-5A	$9.95	1000	250 V	$1^{3}/_{8}$x2
270-8680-2	$2.21	6800	50V	$1^{3}/_{16}$x2

RF Ceramic Doorknob Capacitors

P/N: 290-0500-7, $22.25.
P/N: 290-0170-7, $22.95.
P/N 290-0500-7 is 500 pF, 20%, 7.5 kV. P/N: 290-0170-7 is 170 pF, 20%, 7.5 kV. Both are HT50, RF Ceramic Doorknob Capacitors manufactured by High Energy. These RF transmitting capacitor are ideal for use in RF amplifiers. Threaded 6-32 ends for easy connection. $^{3}/_{4}$" diameter x .625" long.

High-Voltage Vacuum Relays

These vacuum relays are ideal for amplifier QSK switches. Contacts are capable of carrying 10 Amps and break down voltage is 5 kV.

A.

B.

A. 408-8100, $19.95. Kilovac S05FJA238, DPST-NO, contact form, 2A, 5kV rating between contacts, current is 10A DC or 5A RF, 12 VDC coil voltage and 500 Ohm coil resistance.
B. 408-8500, $14.95. Wabash 1017-20-1, DPST, one pole normally open, one pole nor-

Power Relays

Special relays designed for amplifier TR switching, in-rush current protection and other high current applications.

A.

B.

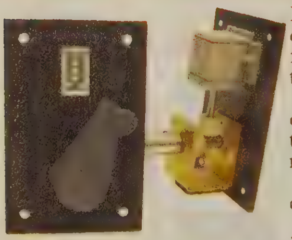
C.

Fig.	Part No. #	Price	Coil Volts	Contacts/Rating	Description
A	408-6140	$20.34	12 VDC	3PDT -- 10A	PCB terminals, 80B/600/500 T/R
A	408-6148	$15.30	12 VAC	5PDT -- 10A	Solder lugs, In-Rush, 80B/600
A	408-6240	$18.24	240 VDC	SPST -- 10A	PCB terminals, amplifier in-rush
A	408-6145	$15.54	120 VDC	SPDT -- 10A	PCB terminals, amplifier in-rush
A	408-6077	$15.99	120 VAC	SPDT -- 10A	Solder lugs, stub mount, general purposes P&B KA5AG
B	408-1255	$19.95	12 VDC	DPDT -- 10 A	P&B KUP-11D55-12
B	408-4700	$17.64	12 VDC	SPDT -- 15A	Chassis mount, QC terminals, in-rush
C	408-7110	$15.75	12 VDC	DPDT -- 20A	QC Terminals, dust cover, flange mount, Sigma 45R2C112-12 VDC
C	408-6230	$12.95	24 VDC	3 PDT -- 10A	Midtex relays 157-33C200, silver contacts, .187" quick connect terminals

Slug Core Tuning Tool

965-6204, $3.00. Plastic tuning stick for adjusting slug cores. Has .1 inch hex end, $7^{1}/_{4}$" long. Fits all Ameritron tube amplifier input coils.

Precision mechanical Deluxe Turns Counter



MFJ-TC12, $69.95. This Precision designed mechanical deluxe turns counter is for use with roller inductors, vacuum capacitors, air variable capacitors, etc.

Precision 5-digit counter is enclosed in a dust-free plastic casing. Counts to 9999.9 turns. Counter is coupled to a 1/4" shaft at right angles with bevel gears.

1/8 inch thick aluminum mounting plate is coated with texture powder paint.

Has #4 counter sink mounting holes. Mount in 1x3" cutout hole. Unit is $2^{1}/_{4}$Wx$3^{1}/_{2}$H in. Assembly includes 1/4 inch shaft coupler and a $1^{3}/_{4}$" fast-turned crank knob.

Pre-wound 200 Watts and 1.5kW Baluns

A.

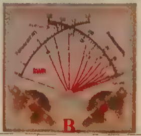
B.

A. 10-10002B, $9.95. Bifiliar wound balun, 1" diameter, ferrite toroid core, 200 Watts, 1.8-30 MHz. Used in 200/300 Watts antenna tuners.
B. 10-10989D, $29.95. Bifiliar wound balun, 2-stack $2^{1}/_{2}$" ferrite toroid cores wound with high-voltage wire. 1.5 kW, 1.8-30 MHz. Used in MFJ-989D tuner.

Precision DC Cross-Needle Meters

Unique, two-meters-in-one Cross-Needle design makes these meters ideal for use in amps and SWR/Wattmeters. Rugged construction with removeable clear plastic cover. Plug-in 12 VDC meter lamp, front panel "zero" adjustment. ***NEW!*** **"L" models have super bright LED backlight!!!!** Raised window for recessed front panel mounting. Solder lug terminals for meter movement, lamp. Linear moving coil movement.

A.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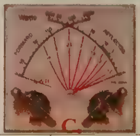

C.

D.

Figure	Part No. #	Price	Sens./Resist./Size	Scale Description
A	400-3580L *LED Light*	$26.80	1mA/120 Ohm 2.8Wx2.8Hx1.4D"	10-250 mA grid current & 0-750 mA plate current
B	400-3581L *LED Light*	$26.80	1mA/120 Ohm 2.8Wx2.8Hx1.4D"	0-2.0 KW Fwd power, 0-500W ref power, 0-35 ALC/ HV, SWR
C	400-3084A 400-3084L *LED Light*	$21.60 $26.80	200uA/750 Ohm 2.8Wx2.8Hx1.4D"	0-300W fwd power, 0-60W ref power, SWR. "L"model is LED backlit.
D	400-3083A 400-3083Y *LED Light*	$17.82 $19.10	200uA/750 Ohm 2.1Wx1.8x1.4D"	0-300 fwd power, 0-60 ref power, SWR curves "Y" model is LED backlit.

LED/Incandescent Replacement Light Bulbs

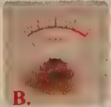
A. B. C.

Figure	Part #	Price	Description
A	355-2299	$1.80	Incandescent replacement bulb for small and large Cross-Needle Meters, (2.1"W or 2.8"W)
B	355-3200	$3.99	LED light replacement for large (2.8"W) Cross-Needle Meter
C	355-3201	$3.99	LED light replacement for small (2.1"W) XMeter

Miniature DC Panel Meters

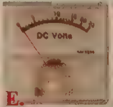
Quality, compact and inexpensive panel meters. Clear, removeable cover, raised window for recessed mounting. Solder lug terminals, moving coil movement. 100 uA movement, 750 Ohm resistance. Size is 1.6Wx1.6Hx1D inches.

A.


B.

C.

D.



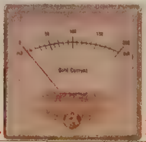
E.

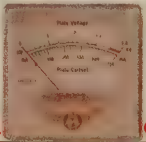
F.

Figure	Part No. #	Price	Scale Description
A	400-0014A	$9.39	0-300 Pwr, 0-30 Pwr, SWR, red/black dual color scale, used in tuners and wattmeters
B	400-0035	$6.84	SWR, red/black scale used in analyzers
C	400-0047	$6.84	0-400 Ohm resistance, red/black scale used in analyzers
D	400-0027	$7.92	-20+3dB, 0-100% VU modulation scale, red/black dual color for line audio monitor
E	400-0090	$7.92	0-25 DC Volts, red/black scale for DC volt monitors
F	400-0026A	$7.92	0-100 general purpose scale

Precision DC Panel Meters

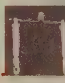
Rugged construction with removeable clear plastic cover. Built-in 12 VDC lamp, front panel "zero" adjustment. Raised window for recessed front panel mounting. Solder lug terminals for meter movement/lamp. Linear moving coil movement. 2.7Wx2.7Hx1.4D"


A.


B.

C.

D.


E.

F.

Figure	Part No. #	Price	Sensitivity/Resistance	Scale Description
A	400-2600AL	$21.92	1mA/120 Ohm	0-200 mA Grid Current Meter for AL-811/H amp. LED lamp.
B	400-2601AL	$21.92	1mA/120 Ohm	0-2.0 kV plate V, 0-700 mA plate I for AL-811/H. LED lamp.
C	400-2026	$16.92	1mA/120 Ohm	0-100 general purpose scale
D	355-0320	$1.80	Replacement bulb for 400-2XXX meters, above.	
E	355-0320L	$3.99	Replacement LED for 2XXX meters. Set for 15 VDC	
F	730-2342	$1.50	Replacement battery holder for MFJ-259/B. Holds four AA batteries. Requires two per analyzer. $1.50 each holder.	

Ferrite and Iron Powder Toroidal Cores

Get RFI out of television, telephone and other electronic devices. Use for baluns, chokes, RF coils, transformers, filters, more.

Part No. #	Price	Size: ODxIDxTH inches	Description
420-6102	.33	.375x.187x.125	#61 Ferrite
420-6103	.72	.500x.281x.188	#61 Ferrite
420-6114	$1.08	1.00x.610x.320	#61 Ferrite
420-7510	$2.80	1.00x.610x.320	#75 Ferrite
420-6138	$10.23	2.40x1.40x.500	#61 Ferrite
421-02037	.40	.375x.205x.128	T-37-2 Iron Powder Mix 2
421-02050	.80	.5x.303x.90	T-50-2 Iron Powder Mix 2
421-02068	.98	.69x.370x.190	T-68-2 Iron Powder Mix 2
421-02094	$1.08	.942x.560x.312	T-94-2 Iron Powder Mix 2
421-02106	$1.36	1.00x.57x.437	T-106-2 Iron Powder Mix 2
421-02157	$3.32	1.57x.950x.570	T-157-2 Iron Powder Mix 2
421-02200	$6.96	2x1.25x.530	T-200-2 Iron Powder Mix 2
420-7800	$1.86	1.00x.50x.410	Iron Powder Mix 2

Select MFJ *hard-to-find* Connectors, Plugs, Adaptors...

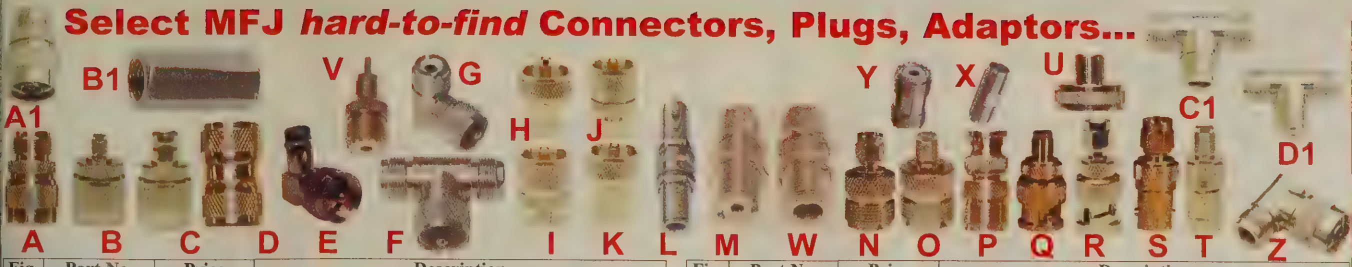


Fig.	Part No.	Price	Description
A1	MFJ-7746	$6.95 ea.	N Male Reverse to N Female Adaptor
B1	MFJ-7755	$6.95 ea.	3/8-24 Female Coupler, 1¼ inch length
A	MFJ-7705	$5.95 ea.	N-Male to SO-239 Adaptor
B	MFJ-7730	$5.95 ea.	N-Male to SMA Female Adaptor
C	MFJ-7731	$5.95 ea.	N-Male to BNC Female Adaptor
D	MFJ-7702	$3.95 ea.	PL-259 to PL-259 Adaptor
E	MFJ-7703	$7.95 ea	PL-259 to BNC Female, Right Angle Adaptor
F	MFJ-7733	$6.95 ea	PL-259 to "T" SO-239 (2) Adaptor
G	MFJ-7734	$4.95 ea	PL-259 Right Angle Adaptor
H	MFJ-7732	$3.95 ea.	PL-259 to RCA Phono Jack
I	MFJ-7727	$5.95 ea.	PL-259 to SMA Female Adaptor
J	MFJ-7717	$5.95 ea.	PL-259 to SMA Male Adaptor
K	MFJ-7737	$5.95 ea.	PL-259 to BNC Female Adaptor
L	MFJ-7711	$5.95 ea.	F Female to F Female Coupler, 1.75" length
M	MFJ-7701	$4.95 ea.	SO-239 to SO-239 Coupler, 1.75" long.

Fig.	Part No.	Price	Description
C1	MFJ-7752	$7.95 ea.	Nx3 Female T Coupler
D1	MFJ-7754	$6.95 ea.	SO-239x3 T Coupler
N	MFJ-7719	$4.95 ea.	SO-239 to SMA Male Adaptor
O	MFJ-7729	$4.95 ea.	SO-239 to SMA Female Adaptor
P	MFJ-7708	$3.95 ea.	SO-239 to BNC Male Adaptor
Q	MFJ-7716	$4.95 ea.	BNC Male to SMA Female Adaptor
R	MFJ-7736	$4.95 ea.	BNC Male to SMA Male Adaptor
S	MFJ-7718	$4.95 ea.	BNC Female to SMA Male Adaptor
T	MFJ-7728	$4.95 ea.	BNC Female to SMA Female Adaptor
U	MFJ-7706	$6.95 ea.	NMO to SO-239 Adaptor
V	MFJ-7738	$5.95 ea.	SO-239 to RCA Male or Motorola made plug
W	MFJ-7739	$5.95 ea.	N-female to N-female Barrel Coupler, 1.75" long.
X	MFJ-7743	$4.95 ea.	SMA Female to SMA Female Coupler, 5/8" length
Y	MFJ-7744	$3.95 ea.	SO-239 to SO-239 Coupler, 1 inch length.
Z	MFJ-7745	$5.95 ea.	Right Angle N Male to N female Adaptor

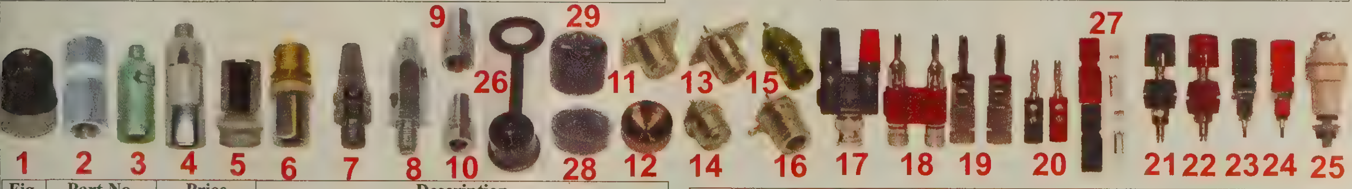
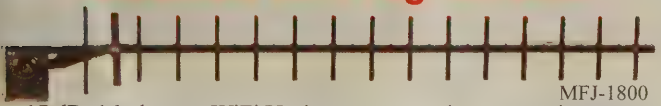


Fig.	Part No.	Price	Description
1	MFJ-7707	$6.95 ea.	NMO to 3/8x24 threaded Adaptor
2	MFJ-7710	$16.95 ea.	3/8-24 to PL-259 Adaptor
3	MFJ-7725	$6.95 ea.	3/8x24 Antenna Mount Quick Connect Adaptor
4	MFJ-7735	$11.95 ea.	3/8x24 Antenna Mount Fold-Over Adaptor
5	MFJ-7714	$4.95 ea.	3/8x24 Chassis Mount with insulating washer
6	MFJ-7748	$5.95 ea.	SO-239 to 3/8x24 Male or Female adaptor
7	MFJ-7712	$4.95 ea.	3/8x24 to .10 inch hole whip ferrules
8	MFJ-7715	$4.95 ea.	3/8x24 to .20 inch hole whip ferrules
9	MFJ-7740	$1.95 ea.	PL-259, *Teflon*®, nickel plated
10	MFJ-7741	.55 ea.	Coax Reducer for RG-58
10	MFJ-7742	.55 ea.	Coax Reducer for RG-8X
11	MFJ-7721	$1.49 ea.	SO-239 4-hole Chassis Mount *Teflon*™
12	MFJ-7720	$1.49 ea.	SO-239 screw-on Protector cover, metal
13	MFJ-7723	$1.95 ea.	N-Female 4-Hole Chassis Mount, *Teflon*™
14	MFJ-7722	$1.95 ea.	SO-239 Single Hole Mount, *Teflon*^{R}
15	MFJ-7726	$1.49 ea.	BNC Female, Chassis Mount

Fig.	Part No.	Price	Description
16	MFJ-7724	$2.49 ea.	N-Female Single hole Mount, *Teflon*™
17	MFJ-7704	$7.95 ea.	BNC to dual Binding Posts
18	MFJ-7709	$6.95 ea.	Dual Banana Plugs, High Current
19	MFJ-7713	$5.95 ea.	1 Red, 1 Black High Current Banana Plugs
20	MFJ-7700P	$6.95 pk.	6 Red, 6 Black Banana Plugs / Pack
21	606-0014	$2.50 ea.	5-Way Binding Post, Black, 30 Amps, insulated
22	606-0013	$2.50 ea.	5-Way Binding Post, Red, 30A, insulated
23	606-0004	1.25 ea.	5-Way Binding Post, Black
24	606-0003	1.25 ea.	5-Way Binding Post, Red
25	606-1006	$3.95 ea.	Feed-through Ceramic Insulator with hardware
26	MFJ-7750	$0.99 ea.	Black PVC Protect Cap for SO-239 w/retaining strap
27	MFJ-11C06	$6.95 ea.	35A *Anderson PowerPoles*™ (6prs) *Pg. 31, more info*
28	MFJ-7756	$1.99 ea.	NMO protective cap, rigid, screw-on. Black.
29	MFJ-7758	$0.99(5-pk)	N/SO-239 Connector protective cap, soft black vinyl.

MFJ 2.4 GHz, 15 dBi, 16-element WiFi Yagi Antenna



MFJ-1800
$29⁹⁵
Ship Code D

15 dB, 16-element WiFi Yagi antenna greatly extends range of 802.11b/g WiFi signals 32 times over an isotopic radiator. Turns unusable or slow WiFi into solid, fast connection. Highly directional -- minimizes interfering signals. Works with any 802.11b/g or 2.4 GHz device.

Unique mount has built-in standard N-type female connector and screw mount for standard tripod. Has rear holes for wall mounting and bottom holes for desk or shelf mounting.

Use vertically/horizontally. Precision punched aluminum antenna is just 18Wx 2¾H x1¼D inches, weighs only 2.9 ounces.

Weather-proof 2.4 GHz, 15 dBi Yagi

MFJ-1801, $69.95. Like MFJ-1800 but housed in a ruggedized *weather-proofed* enclosure. Withstands harsh wind, thunderstorms, ice, sleet, snow, high heat and humidity. Mount on masts up to 1¼" OD. N connector. 20Wx3½Dx3½H inches, just 2½ pounds.

WiFi Yagi Antenna-to-Computer Cables

MFJ-5606SR, $24.95. Reverse SMA male to N-male, 6ft. RG-174. **MFJ-5606TR, $24.95.** N-male to reverse TNC male.

64 Feet, 11-Section Telescopic *Aluminum Mast*

MFJ-1965
$199⁹⁵
Ship Code D

This 11-section *multi-purpose* aluminum telescopic pole can be used for vertical antennas or as a mast, pictured right.

Use as a portable mast for field day and camping trips, temporary for emergency set-ups, or for permanent installation for wire antennas or for lightweight beams and vertical antennas.

MFJ-1965 is 64 feet fully extended so it can really get you up in the airwaves and just 6 feet fully collapsed (without clamps) so it can be handled easily while portable and stored in smaller locations.

Guying is required if the mast is extended beyond 30 feet, especially in a permanent situation. Top section is .625 inches OD, so can handle most antennas. The bottom section is a hefty 2 inches OD x .120 wall. Weighs 24 lbs.

Base Mount for Fiberglas and Aluminum Masts

MFJ-1900, $69.95. Complete base assembly kit includes mounting plate, insulators, hardware, SO-239, etc. for fiberglass and aluminum mast installations. Fit up to 2.0 inches OD masts. Perfect companion for your 64 foot aluminum telescopic mast -- it will hold it steady and safely.

MFJ Order Form

Mail order to: MFJ Enterprises, Inc., 300 Industrial Park Road, Starkville, MS 39759 USA
Phone: 662-323-5869 Fax: 662-323-6551 Email: mfjoffice@mfjenterprises.com Web: www.mfjenterprises.com

Date: ____________ Callsign: ____________

Bill to:
Name: ____________
Address: ____________
____
Email Address: ____________
Phone (home): ____________
Phone (day): ____________

Ship to:
Name: ____________
Address: ____________
____
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Payment: ( ) Visa ( ) MC ( ) Am Exp ( ) Disc ( ) Other__
Card No: ____________
Exp. Date: ________ Three-Digit Security Code: ______

Qty	Company	Model No. / Part No.	Description	Price	Total
			Sales tax where applicable (MS, OH, FL must be added)		
			Sub Total		
			Shipping & Handling		
			Order Total		

PAYMENT INFORMATION / SALES TAX

Personal checks will be held 10 working days upon receipt of order. **FOREIGN ORDERS:** US Funds ONLY. See ship chart for details. **Credit Cards:** Mastercard, Visa, American Express and Discover, government and debit cards. Write your CC#, expiration date, three-digit CVV2 code on your card, other info clearly or call 1-800-647-1800; advise if billing address is different than shipping address. **C.O.D. Fee:** Additional $9.00, above normal shipping charges. **Bank Transfer:** Wire transfers directed to: Regions Bank, Birmingham, Alabama, ABA: 062000019, SWIFT: UPNBUS44; For further credit to: Regions Bank, Starkville, Mississippi; For Account of: MFJ Enterprises, Inc., Account Number: 0080558542. **Add** bank fee of $25.00 for each $500 amount. **Sales Tax:** Mississippi, Florida and Ohio must add sales tax from countythey reside in. *Prices and specifications subject to change without notice or obligation. MFJ will not be held responsible for printing errors.*

NO RISK ORDERING

NO RISK* ORDERING:** Order any product "directly***" from *MFJ Enterprises, Inc., Starkville, MS* and try it for 30 days. **If** not satisfied, we'll cheerfully refund your purchase price (less shipping). No books or software.

MFJ WARRANTY

WARRANTY INFORMATION: All MFJ products (except as noted) come with MFJ's famous *No Matter What*™ one year limited warranty. The warranty does not include kits, books or software. **MFJ** will repair or replace (*at our option*) your MFJ product *No Matter What*™ for one complete year. **Customer MUST** retain dated proof-of-purchase.

REPAIRS / TECH SUPPORT

REPAIRS/TECH Support: Send unit with copy of purchase receipt **to** MFJ Enterprises, Inc., 300 Industrial Park Road, Starkville, MS 39759.
TECH: (662)323-0549 • **E-Mail:** *mfjcustserv@mfjenterprises.com*

UPS / MAIL SHIPPING CHART

*Code F items cannot be sent by USPS/mail. *Foreign orders must call for quote.*

Ship Code	UPS	USPS/MAIL	Canada	Foreign
A	$12.00	$12.00	$25.00	$100.00
B	14.00	20.00	30.00	150.00
C	16.00	25.00	35.00	200.00
D	18.00	30.00	40.00	250.00
E	21.00	35.00	50.00	300.00
F	30.00	*	55.00	*

All packages 1 lb. and under will be shipped by US MAIL for $12.00 minimum charge unless otherwise specified.

Shipping Charges: We ship via best ground method at a flat rate shown above. For faster service, call for quote. We can ship United parcel Service, Priority Mail, Federal Express, Airborne, DHL, etc. 1-800-647-1800.
Please follow the shipping chart shown above; any *excess* shipping charges calculated will be refunded to you upon your order being received.

Prices, specifications subject to change without notice or obligation.

Catalog #090815. (c) MFJ, 2015.

AMERITRON®

2015 Amateur Radio Catalog

No tube, solid state Amplifiers

AMERITRON
ALS - 1306
Solid State no tune
1.2KW 160-6M FET Amplifier
20
17
15
12
10
6
REM
160
80
40
30
BAND SELECT
OPERATE
STANDBY
ON
OFF
ALC SET
ALC
SWR
IPA
TX
REF
PAB
ALC
HV1
HV2
MULTIMETER

See page 140

NEW! ALS-1306, $3299. 1.5-54 MHz, 1.2 kW, Auto Bandswitching!

ALS-1300, $2899

1.8 to 30 MHz, 1200W
Page 97

ALS-600, $1599

600 Watts

Page 98

ALS-500M, $949

500 Watts Mobile
Page 99

. . . the World's High Power Leader!

AL-811 . . . 600 WATTS . . . $849!

More hams use Ameritron AL-811 amplifiers than any other amplifier in the world . . . The AL-811 has earned a worldwide reputation for legendary quality, flawless performance, proven reliability and superb customer service . . .

AMERITRON
AL-811 AMPLIFIER

Now with LED Meters!

Ameritron's AL-811 linear amplifier gives you plenty of power to bust through QRM!

You get a quiet desktop linear that's so compact it'll slide right into your operating position -- you'll hardly know it's there . . . until QRM sets in. And you can conveniently plug it into your nearest 120 VAC outlet -- no special wiring needed.

You get three tough 811A transmitting tubes, extra heavy duty power supply, all HF band coverage, pressurized ventilation, tuned input, dual illuminated meters, adjustable ALC and much more for an incredible $849!

The First 600 Watts makes the difference

The AL-811 gives you 600 Watts PEP output -- that's nearly 2 full S-units over your barefoot rig. That could mean the difference between hearing, *"You're Q-5 armchair copy"* and *"Sorry, can't copy you, too much QRM."*

Now you won't have to stand aside while the *big guns* steal your DX. You'll log some of those stations first.

All band, all mode Coverage

AL-811 covers all HF bands. No compromise on WARC and most MARS bands -- you get a 100% rated output.

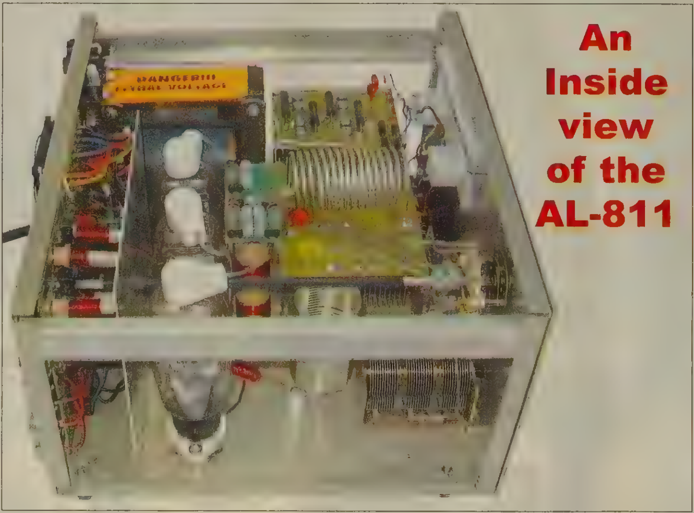
Operate AL-811 on all modes. Get 600 Watts output PEP SSB and 500 Watts output CW. You even get 300 Watts on continuous carrier modes like RTTY, SSTV, and FM.

The low cost 811A tubes resists failure because . . . **First**, they're constructed with widely spaced elements that minimize the chance of elements touching and causing a short -- even if the plate gets hot enough to melt.

Second, they use a directly heated thoriated tungsten filament cathode that prevents the electron emitting layer from instantly stripping off -- even if mistuning causes a sudden, severe current overload.

AL-811
$849
Suggested Retail

The Ameritron AL-811 is excellent for the newcomer because it's tough enough to withstand momentary mistuning. And the tubes are so inexpensive that you can replace one for mere pocket change.



An Inside view of the AL-811

Extra heavy duty power supply gives you peak performance year after year

The heart of the AL-811 power supply is its heavy duty power transformer with a *high silicon steel* core weighing a hefty 17 pounds.

A full wave bridge using 67.5 mfd of total capacitance (four 270 ufd, 450 volt capacitors) produces 1500 Volts under full load and 1700 Volts no load. That's excellent high voltage regulation!

Rectifier diodes are rated for a massive surge current of 200 amps-- won't blow even if you accidentally short the high voltage supply.

Wire wound, 7 Watt, 50 K Ohm equalizing resistors safely protect each filter capacitor -- *not* 2 Watt, 100 K Ohm carbon composition resistors that can open and cause filter capacitors to explode or fail. Ameritron's AL-811 power supply is built tough so you get peak performance year after year.

Tuned input provides excellent load for any rig

A Pi-Network tuned input provides a 50 Ohm load for your rig. Even fussy solid state rigs can deliver their full drive to the AL-811.

Low loss slug tuned coils -- tunable from the rear panel -- let you optimize performance. High quality low drift silver mica capacitors maintain proper tuning.

Output tank: Optimum Q on each band

The low loss pi-network output tank has been carefully designed for optimum Q on each band and built with top quality RF components.

The result is peak performance over each band, wide impedance matching range and exceptionally smooth tuning with efficiencies close to 70%. Even a 3:1 SWR load won't damage tubes/tank components.

A ball bearing vernier reduction drive makes plate tuning safe, precise and easy.

A quiet blower pressurizes the cabinet with a large volume of air flow. It keeps the 811A tube temperature *well below* the tube manufacturer's rating -- even with a key down carrier at 400 Watts output -- without the *overwhelming* noise of oversized fans.

Two illuminated LED meters

Two illuminated LED meters give you a clear picture of your operating conditions so you can tell right away if something is wrong. Long-lasting LED lamps.

The Grid Current meter *continuously* checks for improper loading. The other meter switches between high voltage and plate current to warn of abnormal conditions.

Exclusive Adapt-A-Volt™ power transformer

Too high of line voltage stresses components and causes them to wear out and fail. Too low line voltage causes a "soft tube" effect -- low output and signal distortion.

Ameritron's exclusive *Adapt-A-Volt*™ power transformer has a special buck-boost winding that lets you compensate for stressful high line voltage and performance robbing low line voltage. Your components last longer and gives you peak performance -- regardless of your line voltage.

Plus much, much more . . .

An Operate/Standby switch lets you run barefoot, but you can instantly switch to full power if needed. A transmit LED tells you when your rig is keying your AL-811. A 12 VDC keying relay makes it compatible with all solid state and tube rigs.

Back-pulse cancelling diode protects the rig keying circuit. Shielded RF compartment. One year limited warranty.

Compact 16Dx13¾Wx8 H". 30 lbs. UPS shippable, has transformer installed and wired for 120 VAC. Draws 8 amps at 120 VAC. Export model is AL-811X wired for 240 VAC.

AMERITRON
116 Willow Road, Starkville, MS 39759
Tech: 662-323-8211•Fax: 662-323-6551
www.ameritron.com

AMERITRON...the world's high power leader!

AMERITRON® AL-811H
800 WATTS OUT . . . $999!

AMERITRON
AL-811H AMPLIFIER
BAND
LOAD
PLATE
METER
POWER

Now with LED Meters!

AL-811H
$999
Suggested Retail

Only the AMERITRON AL-811H gives you four *fully neutralized* 811A transmitting tubes. You get absolute stability and superb performance on higher bands that can't be matched by un-neutralized tubes.

AMERITRON mounts the 811A tubes vertically -- not horizontally -- to prevent hot tube elements from sagging and shorting out. Others, using potentially damaging horizontal mounting, require hard-to-find 811A tubes to retard harmful sagging and shorting.

Powerful 20 CFM computer grade fan -- not an open frame phonograph motor -- draws in cool air to pressurize the cabinet and efficiently cool your 811A tubes for an extra long life.

You also get efficient full-size heavy duty tank coils, computer grade capacitors, heavy duty high silicon core power transformer, slug tuned input coils, operate/standby switch, transmit LED, ALC, dual meters, QSK compatibility with QSK-5 option and much more!

SPECIFICATIONS:

- **Output power:** 800 Watts PEP, 600 Watts CW.
- **All Band Operation:** Covers 160-15 Meters including WARC bands. Can be user modified for 12 and 10 Meters.
- **Four 811A Tubes:** Uses four rugged, fully neutralized low cost 811A PA tubes.
- **Vertical Tube Mounting:** Prevents shorting of tube filament/grid, prolongs tube life.
- **Fully Neutralized:** Improves stability and performance on higher bands.
- **Input Tune Circuit:** Adjustable rear panel slug tuned input circuit.
- **ALC Control:** Built-in adjustable ALC control.
- **Vernier Reduction Drives:** Tuning and loading reduction drives make tuning smooth and easy.
- **Dual Illuminated LED Meters:** Monitor vital operating functions.
- **Heavy Duty Power Supply:** 17 pounds, high silicone steel core transformer and computer grade filter capacitor gives 1700 Volts high voltage at no load and 1500 Volts at full load.

Multi-Voltage Operation: User selectable for 100/110/120/210/220/230 VAC operation. Shipped with transformer installed and wired for 120 VAC for domestic model or 240 VAC for export model.

- **Air-Cooled:** Quiet pressurized ventilation keeps tubes safely cooled.

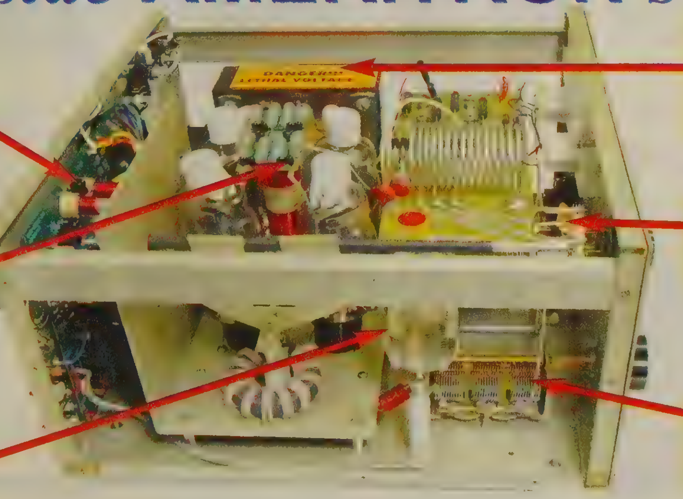
QSK Compatible: Optional external electronic pin diode Transmit/Receive switch. **QSK-5, $359.95.** *See page 96 for details.*

- **Attractive Lexan front decal**
- **One Year AMERITRON warranty.**
- **Dimensions:** 8¼Hx13¾Wx15½D inches.
- **Operating Weight:** 32 lbs. • **Made in USA**

New! Get the AL-811HD with 572B tubes . . . $1299

AL-811HD gives you the AL-811H with four 572B tubes installed. Get a higher power tank circuit and grid overload protection. Grid Overload Protection protects the tubes from excessive grid current due to mistuning and it protects against excessive drive power. Four 572B tubes give you more plate dissipation than a single 3-500Z tube. AL-811HD gives you 800 Watts output in SSB and 600 Watts for continuous duty in CW, RTTY, SSTV and AM operation.

A look inside AMERITRON*'s AL-811H*


Pi-Network Tuned input
provides 50 Ohm
oad for your rig.
Heavy duty power supply:
17 lb. high silicone
steel transformer and
computer grade capacitors.
Four fully neutralized and
ugged 811A transmitting
ubes vertically
mounted.
Heavy duty band switch
Output tank circuit with
ptimum “Q”
for each band
Pi-network gives smooth
tuning and excellent
harmonic suppression.
DANGER!!! LETHAL VOLTAGE

AMERITRON Doubles Average SSB Power

AL-80B kilowatt output desktop linear can double your average SSB power output with high-level RF processing...runs cooler because its 3-500G tube completely turns off between words

AL-80B
$1595
Suggested Retail

Ameritron's AL-80B kilowatt output desktop linear can double your average SSB power output with high-level RF processing using Ameritron's exclusive *Dynamic ALC™*.

You get cooler operation because the AL-80B's exclusive *Instantaneous RF Bias™* completely turns off the classic 3-500G tube between words. It saves hundreds of watts wasted as heat.

You get a full kilowatt PEP output from a whisper quiet desktop linear. It's a compact 8½Hx14Dx15½ inches and plugs into your nearest 120 VAC outlet. Covers all bands 160-15 Meters, including WARC and MARS (10/12 Meters modifiable; FCC license required).

You get 800 watts output on CW, 500 watts output on RTTY, an extra heavy duty power supply, genuine 3-500G tube, nearly 70% efficiency, tuned input, Pi/Pi-L output, inrush current protection, multi-voltage transformer, dual cross-needle meters, QSK compatability, two-year warranty, made in the USA, plus much more!

Dynamic ALC™ doubles average SSB power

The AL-80B's exclusive *Dynamic ALC™* gives you high-level low-distortion RF processing. It can more than double your average SSB power for up to 6 dB improvement in intelligibility, maximizing talk power without distortion/splatter.

A convenient front panel control lets you adjust output power level.

AL-80B's exclusive *Instantaneous RFbias™* turns off the classic 3-500G tube (except filaments) between words and dots and dashes, eliminating hundreds of watts wasted as heat for cooler operation and longer component life.

AMERITRON
AL-80B
AMPLIFIER
PLATE
LOAD
ALC SET
MULTIMETER
POWER

The guts of the AL-80B is its heavy duty power supply. A 26 pound transformer using a high silicone steel core, computer grade capacitors, heavy duty bleeders and ten 3 amp, 1000 volt power rectifiers give you a stiff 2700 volts fully loaded. Many amps using *two* 3-500Gs use such small power supplies they don't deliver much more power than the AL-80B.

The AL-80B is built on a rugged steel chassis with a separate fully-shielded RF compartment to minimize RFI and TVI.

A whisper quiet internal fan draws in cool air over power supply components and pressurizes the classic 3-500G tube compartment to remove heat for longest life.

Tuned input lets your rig deliver full output

50 Ohm broadband Pi-Network tuned input is used. Even fussy solid state transmitters will deliver full power!

A carefully designed Pi/Pi-L output network using the optimum Q for each band gives exceptionally smooth tuning, extremely wide matching range, full band coverage, and peak performance at all power levels.

***Step-Start** Inrush Protection™* stops damaging inrush current with a start up sequence that's easy on your tube and power supply components.

Our exclusive *Multi-Voltage Power Transformer™* lets you optimize for 14 different primary line voltages. The high voltage secondary can be wired to reduce plate voltage for efficient operation below 400 watts for use outside the USA.

AMERITRON's dual LED illuminated cross-needle meters give you four separate meters to monitor your operating conditions -- you can tell right away if something is wrong. Grid and plate current and forward output power are monitored for improper loading and abnormal conditions.

The fourth meter can be switched to monitor your 3-500G tube DC plate voltage, reflected PEP power, antenna system SWR, ALC voltage to your rig, and the grid current that starts ALC action -- get a clear picture of your AL-80B.

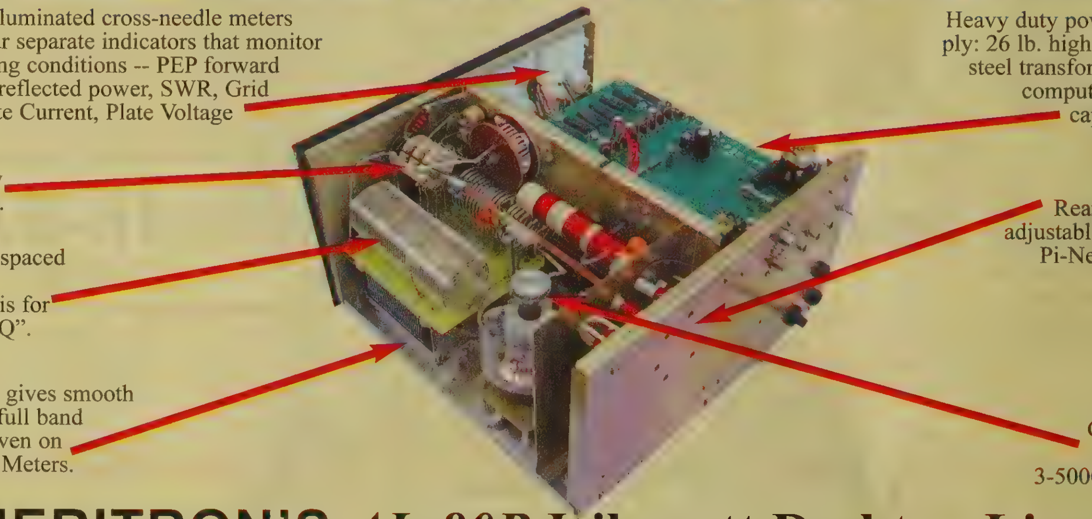
The T/R (transmit/ receive) relay in the AL-80B switches nearly as fast as some vacuum relay QSK T/R switches.

Operate/Standby switch lets you run barefoot, but can instantly switch to full power if needed.

Has transmit LED; 12 VDC, 200 mA accessory jack; 12 VDC keying relay for solid state and tube rigs; tough Lexan over-aluminum front panel. Two-year waranty.

Weighs 48 lb. Power required: 120 VAC, 12A. Made in the U.S.A.

An inside look at AMERITRON'S *AL-80B*



Dual LED illuminated cross-needle meters give you four separate indicators that monitor your operating conditions -- PEP forward power, PEP reflected power, SWR, Grid Current, Plate Current, Plate Voltage and ALC.

Heavy duty power supply: 26 lb. high silicone steel transformer and computer grade capacitors.

Heavy Duty Bandswitch.

Tank coils spaced away from chassis for optimum "Q".

Rear panel adjustable input Pi-Network.

Pi-Network gives smooth tuning and full band coverage, even on 160 and 80 Meters.

Genuine *classic* 3-500G Tube.

AMERITRON'S *AL-80B* Kilowatt Desktop Linear

SPECIFICATIONS:

Frequency Coverage: 1.8, 3.5,7, 14, 21 MHz and WARC bands. Export/User modified models include 10/12 Meters.

Input Circuit: Adjustable Pi-Network, VSWR 1.3:1 or less at resonance.

Output Circuit: Pi-L/Pi-Network.

Input Bandwidth: 20% for 2:1 VSWR or better.

Drive Requirement: 85 Watts for 800 Watt CW output. 10 dB gain.

Shipping Weight: Amplifier, 54 lbs.; tube, 3 lb.

Operating Weight: 48 pounds.

Efficiency: CW/SSB better than 66%.

Dimensions: 15¼Dx14Wx8½H inches.

AMERITRON'S four 572B tubes . . . 1300 Watts . . . $1895!

AMERITRON creates a new class of Near Legal Limit™ amplifiers with the AL-572 . . . you get nearly full legal SSB power output for 65% of the price of a full legal limit amplifier . . . No one will ever know the difference!

You get 1300 Watts PEP SSB nominal power out on amateur bands 160 through 15 Meters!

Four rugged 572B tubes give you near legal limit power and instant 3-second warm-up time.

This whisper quiet, desktop linear plugs into your nearest 120 VAC outlet -- no special wiring needed.

You get . . . Ameritron's exclusive Instantaneous RF Bias™, Dynamic ALC™, ParasiticKiller™, Step-Start™ Inrush Protection, heavy duty power supply, fully neutralized tubes, Pi/Pi-L network, tuned input, pressurized ventilation, dual LED lighted Cross-Needle meters, multi-voltage power transformer, front panel ALC control, 6:1 vernier reduction drives, and much more!

AL-572
$1895
Suggested Retail

The AMERITRON AL-572 gives you 1300 Watts PEP SSB nominal power output on 160 through 15 Meters, using four rugged 572B tubes with 3 second warm-up time. This whisper quiet, desktop linear plugs into your 120 VAC outlet - no special wiring needed.

You get heavy duty power supply; fully neutralized tubes; pressurized ventilation; multi-voltage power transformer; front panel ALC control; 6:1 vernier drives ... and more!

You'll typically get 1300 Watts PEP SSB, 1000 Watts CW continuous, on all amateur bands from 160 through 15 Meters

AMERITRON's exclusive *Instantaneous RF Bias*™ completely turns off the 572B tubes between words and dots and dashes, for cooler operation and longer component life, while *Dynamic ALC*™ can more than double your average SSB power.

AMERITRON's *Step-Start*™ Inrush Protection limits inrush current to your power supply and tube filament, greatly extending tube life and amplifier components.

A heavy duty power supply using a high silicon steel transformer delivers 2500 Volts at 0.7 Amps with good regulation.

A Pi-Network tuned input using slug tuned coils provides a good 50 ohm load for your rig. A quiet internal fan draws in cool air over power supply components and pressurizes the tube compartment.

Grid current, plate current and forward PEP output power are continuously monitored by dual, lighted cross-needle meters.

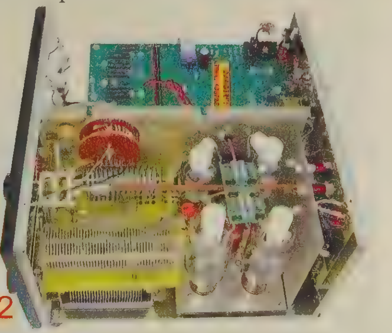
A fourth scale switches among peak reflected power (and SWR), high voltage, ALC threshold, and ALC output voltage.

Ameritron's multi-voltage power transformer has a unique buck-boost winding. It lets you select from 14 primary voltages centered on 115 and 230 VAC.

You can match your AL-572 to your AC line voltage so you'll get peak performance and long component life -- regardless of your line voltage.

An Operate/Standby switch lets you run barefoot, but you can instantly switch to full power if you need it. Transmit LED: 12 VDC. 200 mA accessory jack; 12 VDC keying relay for solid state/tube rigs; tough, nearly indestructable Lexan-over-aluminum front panel. Shipped with transformer installed. Draws 16 A at 120 VAC.

For lightning fast QSK operation use the optional Ameritron electronic PIN diode QSK switch. Shipped wired for 120 VAC. Weighs 40 lb. Power required: 120 VAC, 16 amps. Made in the USA.



Inside view of AL-572

AMERITRON AL-800/AL-800H HF Linear Amplifiers: High POWER in a Compact, Desktop Package

Select the 1250 Watt PEP AL-800 single 3CX800A7 near-legal-limit amplifier, or the 1500 Watt PEP dual 3CX800A7 amplifier that loafs along at full legal limit -- and don't worry about desk space.

AL-800F
$1995
Single Import tube

AL-800
$2295
One *Eimac*®tube

Suggested Retail

AL-800HF
$2745
Two Import tubes

AL-800H
$3345
Two Eimac® tubes

Ameritron's compact AL-800 /AL-800H amps are both desktop linears with plenty of muscle!

At 14.25Wx8.5H x14.5D inches, the more compact AL-800 uses a single 3CX800A7 to provide 1250 Watts PEP SSB and 850 Watts CW with 85 Watts typical drive level.

And the AL-800 will even run from a 20-Amp 120 VAC line source if desired. AL-800 typically draws 17 Amps peak current at 120VAC, or 8 Amps at 240 VAC and weighs just 51 lbs.

For more power and headroom, the AL-800H uses a pair of 3CX800A7 tubes to easily provide 1500 Watts PEP/CW with a typical drive level of just 55 Watts.

The AL-800H draws 14 Amps peak current at 240 VAC (1500 Watts CW output) and weighs just 52 lbs.

Other than power differences, these amplifiers are very similar in features and operation. Both cover 160-15 Meters, and are modifiable to cover 12/10 M with proof of your FCC license.

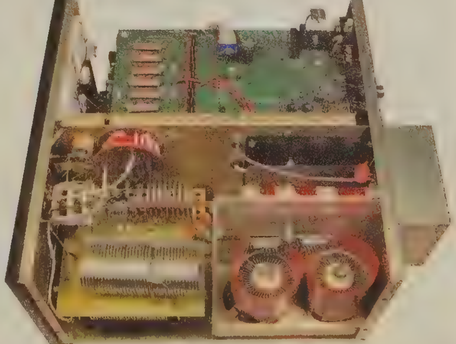
Both include a *Step-Start*™ input power circuit, a time delay circuit to allow for tube warm-up, thermal overload protection, grid current limiting to protect your tube(s), a *DynamicBias*™ circuit and a built-in multi-voltage (14 user-selectable AC line voltages from 90-140; 200-250 VAC) heavy duty power transformer. Hefty 32 lb. grain orientated silicone steel core transformer.

Front panel monitoring and tuning functions are also virtually identical. Both amplifiers include a Standby/Operate switch for barefoot or full power operation, an ALC SET control, Transmit and Fault LEDs.

Dual LED illuminated Cross-Needle meters provide detailed monitoring of amplifier performance. The left meter continuously measures grid and plate currents, and the right meter continuously measures peak RF output power on one scale, and plate voltage, Reflected power and SWR, ALC voltage, and ALC adjustment set.

Quiet pressurized ventilation keeps tubes safely cooled. **A** Pi/Pi-L output network gives you smooth tuning and wide matching range. Vernier reduction drives make tuning and loading adjustments smooth and easy.

Inside view of AL-800H



AMERITRON *super legal limit amplifiers*

Ameritron's AL-1500 Amplifier with *Eimac*$^{(R)}$ 3CX1500A7

AL-1500F
\$3395
Import tube
Suggested Retail

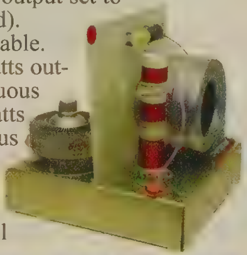
AL-1500
\$4195
Eimac$^{(R)}$ tube

Feel the need for maximum legal HF output power? AMERITRON's AL-1500 will give it to you.

Using the *Herculean 3CX1500A/ 8877* ceramic tube with its high power gain, the AL-1500 needs only 65 watts of drive from your exciter to deliver the goods-- transceivers and other exciters just loaf at 1500 watts out.

Cool, efficient operation is provided by a forced-air system with tube chimney, using a commercial grade die-cast ball bearing blower for maximum tube life. The tube is further protected by time delay starting and automatic over-current shutoff to remove drive power if the amplifier is mis-tuned.

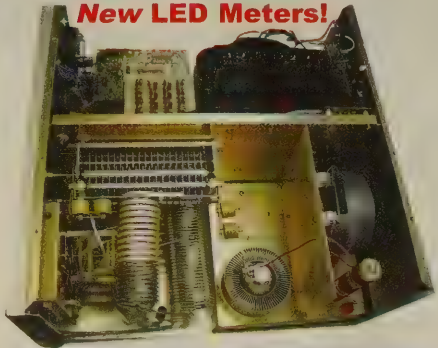
You get full legal power output from a whisper quiet desktop linear. Measures 18^{1}/2D x17Wx10H inches, and covers all bands, 160-15 Meters, including WARC and MARS (80% of full output set to nearest amateur band). 10/12 Meters modifiable.



You get 1500 watts output (1/2 hour continuous carrier) and 2500 watts (30 second continuous carrier and 2500 watts- plus 30 minute PEP two-tone test). You get all this power, plus, 65% efficiency, pi-network tuned input, Pi/Pi-L output, inrush current protection, multi-voltage transformer, QSK compatability, and a one-year warranty.

The guts of the AL-1500 is its heavy duty power supply, with a 32 lb. *Hypersil*$^{(R)}$ transformer using a high silicone steel core, computer grade capacitors (33 mfd total), heavy duty bleeders and twenty 3 amp, 1000 volt power rectifiers give you a stiff 3300 volts fully loaded.

The AL-1500 is built on a rugged steel chassis with a separate RF compartment fully shielded to keep RF from leaking out, keeping RFI and TVI to a minimum.



An inside look at the AMERITRON AL-1500

Superb RF design and layout, Hi-Q tank circuit and commercially rated RF power components give you 65% plate efficiency over the entire operating range. Power goes into the antenna instead of into heat.

50-ohm broadband Pi-Network tuned input with slug-tuned coils is used. Even fussy solid state transmitters deliver full power!

A carefully designed Pi/Pi-L output network using the optimum Q for each band with vernier ball drives gives smooth tuning, wide matching range, full band coverage, and peak performance at all power levels.

The AL-1500's grid overload circuit protects the tube from excessive grid current; if 175 mA of peak gric current is reached, the "OPR" LED will no longer light and the amplifier will go into a bypass condition until reset by the operator.

Transformer provides many options

Since excessive line voltage stresses components (low line voltage causes a "soft tube" effect, for example), Ameritron's exclusive Multi-Voltage Power Transformer™ lets you optimize for different line voltages. Select from 4 different primary voltage ranges, from 205-219 VAC to 252 to 265 VAC. The amplifier comes wired from the factory for 240 VAC.

The AL-1500 has two *illuminated* panel meters. Grid Current meter provides continuous reading of the critical grid current and indicates proper, safe amplifier operation.

The other meter can be selected to read Plate Voltage, Plate Current, Peak RF Watts, or ALC. A SSB/CW selector switch chooses bias voltage for best linearity on SSB or lowest dissipation on CW.

The Operate/Standby switch, in *Standby*, maintains the tube's filament and plate voltages while allowing "barefoot" operation.

Includes 12 volt DC auxiliary jack and an "XMT" LED to provide indication of proper amplifier keying by the exciter.

Power required: 240 VAC, 15 amps.

Frequency coverage: 1.8,3.5,7,14, 21 MHz & Warc bands. User-modifiable for 28 MHz (FCC license required). **Size:**18^{1}/2Dx17Wx10H". 77 pounds. UPS shippable, 3 boxes.

Hypersil$^{(R)}$ *Transformer weighs 32 lbs.*

Slug Core Tuning Tool 965-6204, \$3.00. Plastic tuning stick for adjusting slug cores. .1 inch hex end, 7^{1}/4 inches long. Fits Ameritron tube amplifier input coils.

Ameritron's 3CX1200Z7 Amplifier

AL-1200
\$3995
Suggested Retail

Ham Radio's toughest tube -- the *Eimac*$^{(R)}$ 3CX1200Z7 is in ham radio's toughest amplifier! It has a 50-Watt control grid dissipation. It also has the same super heavy duty power supply that's in our AL-1500 amplifier that loafs at full power. A 3CX1200Z7 has the lowest quantity history of field replacement of any modern transmitting tube that we use. It has the ruggedness and power handling of ceramic tubes combined with the long-life of thoriated tungsten filaments.

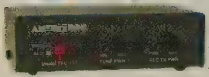
Ameritron's Dual 3-500G Amplifier

AL-82
\$2995
Suggested Retail

This *classic linear* gives you full legal output using a pair of 3-500G graphite tubes. Examine the features and component ratings of the AL-82 and compare it to any competing amplifier using two 3-500Gs.

Most competing amplifiers using 3-500Gs can't give you 1500 Watts because their lightweight power supplies can't use these tubes to their full potential. Our AL-82 amplifier uses the same *Hypersil*$^{(R)}$ *power transformer* and used in the AL-1500 and AL-1200 amplifiers -- *powerful stuff, just loafs at full power!*

Rig Output Power Control



TPC-150
\$69^{95}
Suggested Retail

Use for transceivers without output power control to drive an amplifier or tune an antenna tuner. Avoid over-driving your amplifiers and tuners. Use with any transceiver and amplifier combination with external ALC. Front panel transmit power and ALC control, in/out phone jacks for CW, Amp Key, ALC. 110 VAC. 5^{1}/4Wx2^{1}/4Hx3^{1}/2 in.

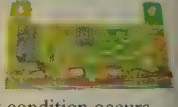
Add-on Electronic Bias for AL-82/1200/1500

EBS-1 PC board reduces heat by reducing quiescent current to low values during periods when exciter output falls below 100 mW. Remote detector board for Ameritron amplifiers.

EBS-1H, \$49.95, for other brand amplifiers. Call 662-323-8211 for more details.

EBS-1
\$39^{95}
Suggested Retail

GOP-100 Grid Overload Protection Module - \$39^{95}



Grid Overload Protection module protects your amp's tube from excessive grid current. Fast-acting electronic circuit rapidly disables the amp if excessive grid current condition occurs. Easy to install in your Ameritron amp. Factory installation available, 662-323-8211 for details.

Ameritron 1200W Output Solid State Amplifier

1200 Watts PEP Output, Instant bandswitching, no tuning, no warm-up, SWR protected, 1.5-22 MHz . . . Quiet Variable-Speed Cooling System . . . PEP Forward/Reflected Metering . . . PA Balance /ALC Metering and LED Indicator . . . Front Panel Band and Error LEDs . . .

ALS-1300

$2899

Suggested Retail

Call Your Dealer for Your Best Price!

AMERITRON ALS-1300 is a solid state near legal limit™ FET no-tune Amplifier. Get instant bandswitching, no tuning, no warm-up, no tubes to baby and no fuss!

Reliability of the ALS-1300 is insured by using *eight rugged MRF-150 power FETs*. Ameritron's eight FETs are mounted on the dual heavy duty heat sink. They are properly arranged to spread out the heat over a large surface, something that other amplifiers using a single power device cannot do. *Some* FETs actually are a package of several transistors in one large case. This concentrates all of the heat in one small package. They not only are more difficult to cool, if one transistor fails they all have to be replaced.

The ALS-1300 RF deck operates at 50 Volts for efficient, low distortion linear RF power service. It's cooled by a whisper quiet cooling fan. Fan speed is regulated by temperature sensors, assuring minimum noise for adequate cooling.

ALS-1300 runs up to 1200 Watts of clean SSB output power (just 100 Watts drive gives you the full rated 1200 Watts output) for continuous coverage between 1.5-22 MHz. 10/12 Meters available to licensed amateurs with an optional kit (*MOD-10MK, $39.95*). Must present FCC license at time of sale.

The operator-friendly layout fits nearly any station configuration. The attractive desktop amplifier unit weighs only 22 pounds. Compact 10Wx 6½Hx18D inches.

SWR Protection prevents amplifier damage if you switch to the wrong band, use the wrong antenna or have a high SWR. Over-power protection enables if output forward power or reflected power exceeds a safe level.

Output power is automatically reduced to prevent amplifier damage by controlling ALC to exciter.

LED illuminated Cross-Needle SWR/Wattmeter lets you read SWR, forward and reflected *peak* power simultaneously. You also get ALC, SWR, PA balance and current metering with LED backlight. An Operate/Standby switch lets you run "barefoot", but you can instantly switch to full power if needed.

Front-panel ALC control! This *exclusive* Ameritron feature lets you adjust output power on the convenient front panel display.

You also get front panel Operation, Band, and error LED indicators like reflected power and bandswitch errors.

Enjoy 1200 Watts of *no tune* Solid State power with the Ameritron ALS-1300 amp.

ALS-1300 Power Supply

The ALS-1300 is powered by a 50 VDC switching power supply. Comes with pre-wired cable to plug into the ALS-1300. This *hash-free* fully-regulated switching power supply is only 12 lbs. and measures a compact 10Wx6½Hx9½D in. It can be placed conveniently out-of-the-way at your operating station. Output is 50 VDC at 50 Amps to the ALS-1300. Wired for 220 VAC, selectable to 110 VAC. Draws less than 25 Amps at 110 VAC; 12A at 220 VAC.

HF+6M 1200W Solid State Amplifier

New!

ALS-1306

$3299

Suggested Retail

- **1200 Watts PEP on HF + 6M**
- **Built-in Automatic Band Switching**
- **Built-in 10/12 Meters**

See Page 140 for more details.

Let your rig *auto bandswitch* your Solid-State Ameritron Amps

Ameritron's ARI-500 *Amplifier Radio Interface* reads band data from your Icom, Yaesu, Kenwood, Elecraft or Alinco rig so you can remotely and automatically band switch your Ameritron Solid State Amps (ALS-500M/ALS-600/ALS-1300).

Now you can mount your amp *out-of-the-way* in your trunk, at the back of your motorhome or elsewhere and operate with just this tiny box at your station control.

Works with ALS-500M amplifiers with serial numbers above 13049 (below 13049 requires the ARF-500K.

ARI-500

$119.95

Suggested Retail

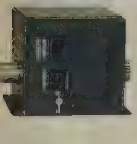
Works with ALS-1300, ALS-600, ALS-600S amplifiers and older ALS-600 and ALS-600S amplifiers with the remote A/B jacks on the front panel.

ARI-500 Cables . . . $24.95

Model #	Transceiver
RJ-13D	Icom 706, 7000, 718
RJ-7DI	Icom ACC2, 7 pin
RJ-DB97DK	Kenwood w/RS232 except TS-480
RJ-DB8MK	Ken TS480 and compatibles
RJ-DB9Y	FT-847 CAT
RJ-8MY	FT-847 Tuner Port
RJ-8MY2	FT-857D, 897D, 1000MP
RJ-10MY	Yaesu FT-450/950/1200
RJ-8DY	Yaesu with 8 pin Data
RJ-DB15Y	Yaesu FT-DX3000
RJ-DB15HE	Elecraft (BCD)

Precision HF+6 Meter peak-reading SWR Wattmeters

Flat Mount Mobile SWR/Wattmeter



AWM-35B/BH

$159.95

Suggested Retail

Just 1⅝" thick - easily mounts on your dashboard for easy viewing. Flat mount on wall or shelf in your ham shack for best viewing angle. Remote sensor with 25 feet thin, flexible cable lets you place sensor and coax out-of-the-way. Handles full 1500 Watts, 1.8-60 MHz. LED lighted Cross-Needle meter. *Active* electronics lets you read *true* peak or average power in two power ranges. Has "High SWR" LED. Flat-Mount watt-meter measures 5Wx3¼H x1⅝D"; remote sensor is tiny 3½Wx2¾H x2¾D". Use 9V battery or 12 VDC.

AWM-35B has 300 Watt low, 3 kW high meter scale.
AWM-35BH has 100W low, 1000W high meter scale.

Base Station *1500 Watt* SWR/Wattmeter

AWM-30B

$149.95

Suggested Retail

We painstakingly designed the AWM-30B to make accurate, precise power measurements.

Designed-in-accuracy is the result of a carefully designed directional coupler, an accurate *active* peak reading circuit and a precision d'Arsonval meter movement. Ameritron's AWM-30B reads *true-peak* or average power on a large LED lighted three inch Cross-Needle meter. Handles 1500 Watts, 1.8 to 60 MHz. Has 3000/300 Watt ranges. Reads forward and reflected power and SWR on highly visible dual cross-needle meter movement.

Remote sensor with cable lets you conveniently place sensor. Battery saver turns unit off with no RF applied. Uses 12 VDC or 9 volt battery (not included). Beautiful wrap-around custom metal cabinet looks great in your shack. Compact 4½Wx4½Hx5½D in.

AMERITRON *no tune* Solid State FET Amplifier

No tuning, no fuss, no worries -- just turn on and operate . . . Incredibly low $1599 includes AC power supply, 600 Watts output, continuous 1.5-22 MHz coverage, instant bandswitching, no warm-up, no tubes to baby, fully SWR protected, extremely quiet, very compact . . .

• Made in U.S.A.

ALS-600
$1599
Suggested Retail
(Includes AC Power Supply, ALS-600PS)

ALS-600S
$1699
Suggested Retail
(Includes Switching Power Supply, ALS-600SPS)

AMERITRON's revolutionary ALS-600 and ALS-600S are amateur radio's *only* linear amplifiers that use four rugged TMOS RF power FETs -- gives unequaled no tune solid state performance. **ALS-600, $1599,** includes a linear 120/220 VAC, 50/60 Hz AC power supply for home operation.

ALS-600S, $1699, includes a 120/220 VAC portable switching power supply, just ten pounds.

You get instant bandswitching, no tuning, no warm-up, no fuss! ALS-600 gives 600 Watts PEP Output power and 500 Watts CW with continuous coverage 1.5 to 22 MHz; 10/12 Meters with easy-to-install optional kit, $29.95 plus shipping. Must present FCC license at time of sale.

SWR Protection prevents amplifier damage if you switch to the wrong band, use the wrong antenna or have a high SWR. Over-power protection enables if output forward power or reflected power exceeds a safe level. Output power is automatically reduced to prevent amplifier damage by controlling ALC to exciter.

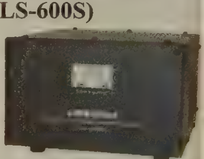
The ALS-600 is extremely quiet. A low speed, low volume fan is so quiet you'll hardly know it's there, unlike noisey blowers used in other amplifiers. ALS-600 is a compact 9½Wx6½Hx12D inches -- takes up less space than your rig! Weighs just 12½ lbs.

An LED illuminated Cross-Needle SWR/Wattmeter lets you read SWR, forward and reflected *peak* power simultaneously. An Operate/Standby switch lets you run "barefoot", but you can instantly switch to full power if you need it.

You get a front-panel ALC control! This *exclusive* AMERITRON feature lets you adjust your output power on the convenient front panel display. You also get front panel Transmit, ALC, and SWR LED indicators. A 12 VDC output jack lets you power low current accessories. Enjoy 600 Watts of no tune Solid State power. Call your favorite dealer for your best price.

But it gets even better than this! Do you want to place even the main ALS-600 amplifier out of the way? Do you want the ALS-600 to change bands automatically when you change bands on your transceiver? You now have these options. A pair of RJ45 remote control interface jacks on the amplifier permits ALS-600 to be controlled either manually by the compact ALS-500RC Remote Control Head, or automatically by the ARI-500 Automatic Band Switch. The Automatic Band Switch reads band data from your transceiver and automatically changes the ALS-600 bands as you change bands on your transceiver. See more details on page 99.

Heavy Duty Linear Power Supply (included with ALS-600) features: •Massive choke input filter greatly improves voltage regulation and reduces peak AC line current • AMERITRON's *exclusive Multi-Voltage Power Transformer* lets you compensate for stressful high line voltage and performance robbing low line voltage • Step-*Start Inrush Protection*™ stops damaging inrush currents and extends the life of your power supply components • Illuminated Cross-Needle Meter monitors voltage and current of 50 VDC line. • Extremely quiet fan • Very compact 9½Wx6½Hx12D inches -- can be placed conveniently out of the way • Wired for 120 VAC, supplies 50 VDC at 25 Amps to ALS-600 amplifier • Also use on 100-130 VAC and 220-250 VAC, 50/60 Hz • Draws less than 12 Amps at 100 VAC and less than 6 Amps at 230 VAC • Includes prewired cable to plug into ALS-600 amplifier. Purchase **ALS-600PS** separately for **$599.95**.



Switching Power Supply (included with ALS-600S) works with all ALS-600 amplifiers. Extremely lightweight, just 10 lbs. Superb regulation, very low radiated noise. Measures a compact 9Wx6Hx14½D inches. Great for portability! Purchase **ALS-600SPS** separately for **$699.95**.

Amplifier Radio Interface

REMOTE
RADIO
AMERITRON

ARI-500, $119.95. Amplifier Radio Interface reads band data from your transceiver so you can automatically bandswitch ALS-600 or ALS-600S amplifiers. *See Page 99.*

Just don't take it from us . . . here's what "they" say about our solid state base station amplifier:

". . . the amplifier faulted only when it was supposed to. It protected itself from our boneheaded, sleep-deprived band changing manuevers . . ."

"I found myself not worrying about damaging this amplifier. It seems quite capable of looking out for itself. . . . Kudos to Ameritron."

"I couldn't hear any noise at all from the SPS (*switching power supply*) on the vertical or quad . . ."

"I came to greatly appreciate the size, weight, reliability and simplicity of this amplifier."

"The ALS-600S makes it possible to pack a transceiver and a 600 Watt amplifier, that together weigh less than 30 pounds." QST, 2005.

AMERITRON Inrush Current Protector stops damaging inrush current

Protects your amplifier, tubes and power supply components . . .

ICP-120
or ICP-240
$79.95
Suggested
Retail

When you first turn on your amplifier, a massive inrush current gushes in. House lights flicker as you hear a loud "thump" from your amp. This terrible inrush current stresses all your power supply components to their limits. Your cold tube filament suffers abusive thermal shock. Eventually, this massive inrush current will damage your amplifier.

Ameritron's *Step-Start Inrush Current Protector*TM stops damaging inrush current.

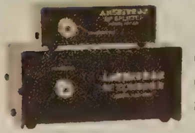
Momentary high-voltage "spikes" in the AC line can also cause damage to your amp. The ICP-120/240 has built-in varistors to absorb these spikes before they can cause damage. Works with nearly all linear amplifiers.

By starting your linear amplifier through a high power current limiting resistor and then shorting the resistor with a relay, the start-up sequence is easier on tube and power supply components. All Ameritron kilowatt amplifiers have this critical protection -- now you can add this protection to your amp without complicated wiring -- you don't even have to remove the cover!

Ameritron **ICP-120, $79.95** for 120 Volt wired amplifiers. Limits current to 12 Amperes during heavy draw inrush period, 20 Amperes during continuous operating current.

ICP-240, $79.95 for 240 Volt wired amps.

Get power of 2 amplifiers with Ameritron's Splitter/Combiner!



Use the ASP-200 and ACB-1000 together and get a combined output power of 2 amplifiers!

ASP-200 splits your radio's output into two outputs to drive two amplifiers of equal power.

ACB-1000 combines the outputs of two amplifiers for a *combined amplifier output power* and still maintains the 50 Ohm output for your antenna.

Amps of equal power like two ALS-500M or two ALS-600 can be used.

ASP-200, $69.95. Handles radio power to 200 W. SO-239. 4Wx1⅜Hx2¾D"

ACB-1000, $149.95. Handles *combined* power to 1.5 kW. SO-239s. 6Wx3x4D".

ARF-1000 *RF Filter* reduces harmonics

ARF-1000
$159.95
Suggested
Retail

Use with rigs or amps that are producing unwanted harmonics. Frequency select switches to one of six different ranges from 1.5 to 30 MHz. Handles 1000 W SSB input power, 600 W CW or 400 W RTTY. SWR is less than 1.3:1 on all ham bands. SO-239 connectors. 5½Wx3½Hx9½D in.

AMERITRON mobile *no tune* Solid State Amp

500 Watts, Instant bandswitching, no tuning, no warm-up, SWR protected, 1.5-22 MHz . . . ARI-500 Amplifier Radio Interface reads transceiver band data -- automatically bandswitches ALS-500M amp . . . ALS-500RC Remote Head gives total remote control!

THERMAL
LOAD FAULT
DC AMPERES
AMERITRON
ALS-500M
Solid State no tune Mobile Amplifier
ON
POWER
OFF
REMOTE

ALS-500M
$949
Suggested Retail

Just turn on and operate -- no warm-up, no tuning, instant bandswitching. Compact.

Ameritron's ALS-500M solid state *mobile* amp gives you 500 Watts PEP SSB or 400 Watts CW output! Covers 1.5-22 MHz, (10/12 Meters with MOD-10M, $29.95 kit, requires FCC license). Mail with order to Ameritron.

Virtually indestructible! *Load Fault Protection* eliminates amplifier damage due to operator error, antenna hitting tree branches, 18-wheeler passing by. *Thermal Overload Protection* disables/bypasses amp if temperature is excessively high. Auto resets.

Typically 60-70 watts in gives full output. ON/OFF switch bypasses amplifier for "barefoot" operation. Extremely quiet fan comes on as needed. Excellent harmonic suppression, push-pull output, DC current meter. 13.8 VDC/80 Amps. Super-compact 3½x9x15 inches. 7 pounds.

ALS-500M, $949, 500 Watt mobile amp.

ALS-500MR, $979, ALS-500M mobile amp *plus* ALS-500RC *Remote Head for full manual remote control.*

ARF-500K, $179.95, Remote kit for older ALS- 500M mobile amps with serial # below 13049. Includes filter/relay board for ALS-500M, AL-500RC Remote Head, cables, hardware, instructions.

ARF-500K2, $289.95. Includes ARF-500K Remote kit for older ALS-500Ms *plus* ARI-500 *Amplifier Radio Interface* below.

***New* ARI-500, $119.95**, *Amplifier Radio Interface* reads band data from your transceiver so you can *automatically bandswitch* your ALS-500M amplifier. *See below left.*

Choose ARI-500 for fully *automatic bandswitching* or ALS-500RC for *manual* remote control.

AMERITRON
ALS-500RC

ALS-500RC, $49.95, *Remote Head* lets you place your ALS-500M or ALS-600 amplifier *out-of-the-way* and gives you full *manual remote control.* Select desired band, turn on/standby and monitor current draw on its DC Current Meter. Power, transmit and overload LEDs. RJ-45 cables plug into Amplifier/ Remote Head. Works with serial numbers above 13049 (below 13049 requires the ARF-500K, above). Compact 4Wx2¾Hx1D inches.

Let your rig *auto bandswitch* your Solid-State Ameritron Amps

Ameritron's ARI-500 *Amplifier Radio Interface* reads band data from your Icom, Yaesu, Kenwood, Elecraft or Alinco rig so you can remotely and automatically bandswitch your Ameritron Solid State Amps (ALS-500M/ALS-600/S/ALS-1300).

Now you can mount your amp *out-of-the-way* in your trunk, at the back of your motorhome or elsewhere and operate with just this tiny box at your station control.

Works with ALS-500M serial numbers above 13049 (below 13049 requires the ARF-500K, *see above*).

Works with all current ALS-600 and ALS-600S amplifiers and older ALS-600 and ALS-600S amplifiers with the remote A/B jacks on the front panel.

Works with all ALS-1300 amplifiers.

REMOTE
A
B
RADIO
ARI-500
PWR
LINK
AMERITRON

ARI-500
$119.95
Suggested Retail

ARI-500 Cables . . . $24.95

Model #	Transceiver
RJ-13D	Icom 706, 7000, 718
RJ-7DI	Icom ACC2, 7 pin
RJ-DB97DK	Kenwood RS232 except TS480
RJ-DB98MK	Kenwood TS480, compatibles
RJ-DB9Y	FT-847 CAT
RJ-8MY	FT-847 Tuner Port
RJ-8MY2	FT-857D, 897D, 10000
RJ-10MY	Yaesu FT-450/950/1200
RJ-8DY	Yaesu with 8 pin Data
RJ-DB15Y	Yaesu FT DX3000
RJ-DB15HE	Elecraft (BCD)

Base Operation Power Supply for your ALS-500M Amplifier

AMERITRON
75 Amp Switching Power Supply
SPS-75MV

SPS-75MV
$259.95
Suggested Retail

Has Anderson PowerPoles™!

AMERITRON's Exclusive *HashFilters*™
Filtering System eliminates RF hash that *plagues* other manufacturer's switching power supplies.

Ameritron's heavy duty 75 Amp switching power supply is excellent for powering your HF mobile amplifier or your HF and VHF/UHF rigs and accessories.

It's great for Ameritron's ALS-500M Solid State Mobile HF Amplifier and others with a power requirement of up to 75 Amps.

SPS-75MV delivers 75 amps maximum and 70 amps continuously without even flexing its muscles. Input voltage selectable for 110 VAC or 220 VAC.

It's highly regulated with load regulation better than 1%. Ripple voltage is less than 12 mV peak-to-peak at rated load.

No RF hash! Ameritron's exclusive *HashFilters*™ Filtering System eliminates RF hash that plagues other manufacturer's switching power supplies.

Fully protected -- your SPS-75MV has Short-Circuit, Over-load and Over-Temperature protection systems. Also has an auto restart after a fault. Has power on and Fault LED indicators.

You get front panel adjustable voltage from 4.0 to 16 VDC. Front-panel meters with backlight let you monitor voltage and current simultaneously.

Attractive front panel features several options for connecting your gear: One pair of 5-way binding posts, two pair of *Anderson PowerPoles*™ one pair of high-current 5-way binding posts, a cigarette socket for mobile accessories, and two pairs of quick connects.

Whisper quiet fan speed increases as load current increases -- keeps components cool and protected.

Battery Charger

An automatic battery charging feature provides charging current of 20 Amps maximum, 5 Amps continuous, and 30 mA trickle charge.

Measures 9¾Wx5½Hx9½D inches. Weighs just 10.5 lbs., so it's still light enough to carry on DXpeditions, camping trips and vacations. No more hauling around big, bulky conventional power supplies that can give you a hernia!

AMERITRON *Amplifier-to-Transceiver* Interface

Protects expensive radio from damage by keying line transients and steady state current and voltages

AMERITRON
Starkville, MS USA
Model ARB-704
Amp
ALC
Radio
Multi-Port
Power

ARB-704
INTERFACE BUFFER
$59.95
ARB-704I2
for IC-706 series radios
(Includes PNP-13D)

ARB-704 will work with most any transceiver without need of the plug-and-play pre-wired cable.

The ARB-704 advanced interface is compatible with all common radios and amplifiers even though radios and amplifiers do not have standardized voltages, accessory plugs, or wiring. It's designed to work with any amplifier/radio combination.

The input is designed to be compatible with any transmitter or transceiver, and the output is compatible with AC control lines or DC positive or negative amplifier control lines having up to 200 Volts peak open circuit voltage and 300 mA of operating current.

Why you need the ARB-704

Amplifiers can damage radios if the amplifier has too much relay control voltage, voltage spikes, or excessive current on the relay control line. Such damage often appears as "stuck" or "sticky" transmit relays in exciters or shorted transistors on transmit control lines. In most cases where the radio is damaged, the system transmits normally but the external amplifier stays locked in a "transmit" mode. This prevents receive signals from coming through the amplifier with normal levels whenever amplifier is in "ON"/"OPERATE" position.

The ARB-704 has many electrical advantages over conventional relay buffer systems. The ARB-704 has no moving parts, switches almost instantaneously. It is noiseless, has very long life, and will not develop dirty contacts. It operates with negative, AC, or positive amplifier relay control lines.

It works with any relay voltage (AC, positive, or negative) up to 200 peak volts and any relay current up to 300 mA. The ARB-704 is fully compatible with conventional amplifier relay systems. It is especially suited for buffering vacuum relay QSK amplifiers, since the ARB-704 does not affect attack or release times in a deleterious manner.

The ARB-704 operates with transmitters or transceivers that pull amplifier control lines to ground, or output a wide range of positive or negative control voltages. The transmitter only switches currents under 0.35 milliamperes and very low voltages when using the ARB-704. Measures a super compact 4¼Wx1¾Hx2¾D".

PLUG-AND-PLAY CABLES

Cables are $17.95 each.

ARB-704 is supplied with the following: One power connector cord and plug with red wire (+12 Volts) and black wire (neg. and ground).

Three phono (RCA) cords with connectors on each end are also supplied for relay, ALC and amplifier control lines.

Model#	Transceivers
PNP-8D	FT-1000/2000,(MP), 767GX,920,990,747GX
PNP-8M	FT-890, 840, 817, 857, 897, 900
PNP-35	FT-100, (D)
PNP-5M	FT-847
PNP-10MY	FT-450/950/1200
PNP-DB15Y	FTDX-3000
PNP-7D	TS-440, 690, 450, 180, 140, 950, 130, 870, 2000, 50, 120, 530, 430, 830, 850, 940, 570, 990
PNP-13D	All models of the IC-706 series, 718, 7000
PNP-7DK	TS-930 (serial numbers lower than 309)
PNP-8MK	TS-480
PNP-5D	FT-980
PNP-8DI	ICOM ACC JACK
PNP-7DI	ICOM ACC 2 JACK
PNP-8DT	TENTEC 599 Eagle

A plug-and-play cable is not needed if your radio is not listed.

AMERITRON QSK-5 High Power High Speed Transmit/Receive Switch

QSK-5
$399.95
Suggested Retail

AMERITRON
2.5KW QSK T/R SWITCH
MODEL QSK-5

This self-contained AMERITRON QSK-5 Transmit/Receive Switch uses electronic PIN diode switching to give you lightning fast QSK operation from nearly any HF linear amplifier.

It lets you use your linear amplifier for high power QSK CW, for packet, AMTOR and any mode requiring extremely fast switching between transmit and receive.

Installation is simple. Just plug in a few cables to start enjoying QSK -- there's no complicated internal wiring.

The world's most advanced QSK switch has new technology that'll make your amplifier last longer and prevent TVI, RFI and key clicks.

AMERITRON's exclusive *AmpSaver*™ (available in QSK-5PC) completely turns off your power amplifier tube current between dots, dashes and words! This new QSK technology gets rid of unwanted power dissipation that causes damaging heat. Your expensive amplifier runs cooler so every component in your amplifier lasts longer.

Our exclusive *SureSwitch*™ handshaking prevents "hot switching" RF power. Prevents TVI, RFI, key clicks and possible damage to your amp.

The QSK-5 is six times faster than a typical mechanical vacuum relay "QSK" switch that can just barely keep up with QSK transceivers. As radios get faster and better, mechanical switching just won't be able to switch fast enough. Unlike noisy mechanical vacuum relays, the QSK- 5 is extremely quiet -- there's no relay chatter keeping you from enjoying QSK.

You won't have to pay for QSK again if you buy another amplifier. Unplug the QSK-5 and use it with your new amp.

Handles 2500 Watts PEP and 2000 Watts CW in normal amateur service when SWR is below 1.5:1. Handles 750 Watts on continuous carrier modes such as RTTY, SSTV, and FM. Optional cooling fan (CF-5, $39.95) allows sustained operation at 1500 Watts in any mode. Use with positive voltage keying up to +25 Volts. 6Dx4Hx91/2W".

Internal QSK Available for the following AMERITRON models: AL-80B, AL-1500, AL-1200, AL-82, AL-800, and AL-800H.

***Contact** Ameritron for installation details on the QSK-5PC internal switch.*

Tune-up your linear amplifier perfectly! *No* over-heating, tube damage, power supply stress, arc over

ATP-102 Tuning Pulser II

ATP-102
$79.95
Suggested Retail

The ATP-102 *Amplifier Saver*™ lets you safely tune up your linear amplifier *perfectly* for full power output and best linearity. This deluxe version tuning pulser has Duty Cycle and Pulse Rate Controls on its front panel for easy performance testing of Wattmeters, QSK systems, and other equipment.

It protects your expensive amplifier from overheating, tube damage, power supply stress and arc-over during tune-up. It prevents premature failure and costly component replacements.

AMERITRON's innovative *pulse tuning technology* lets you tune your amplifier at full peak output power for best linearity. It keeps average power to a low safe level to prevent overheating and power supply stress.

"Why can't I just tune up at low power to reduce overheating and component stress?" you ask yourself. Well you can . . . but if you don't re-tune at high power (which causes overheating) you can create severe splatter and abuse your tube grids because of excessive grid current.

If your linear uses tubes that are easily damaged by normal tune-up, the ATP-100 could extend tube life.

"Sniff-out" RFI or TVI caused by rusty guy wires, rain gutters, clotheslines and others by generating *full peak power* without amp damage. Also use to test wattmeters and QSK systems.

Set and forget internal trimpots let you tailor duty cycle and pulse rate precisely for your rig and amplifier. Plugs into your rig CW key jack. Simply press Pulse Tune button and tune your amplifier normally for maximum power output.

Locking Pulse Tune and momentary Carrier Tune buttons. Fully shielded all metal case. 3¼Wx1¼Hx4D inches. Uses 9 Volt battery.

Amplifier Tuning Pulser

ATP-100, $69.95. Like ATP-102 but less Duty Cycle and Pulse Rate Controls on front panel.

Ameritron TRP-150 *Transceiver Front-end Protector*

New!
AMERITRON

TRP-150
$59.95
Suggested Retail

TRP-150 protects your receiver front-end from high level RF signals. Use this for added safety when operating in a multi-station contest environment and when another station is nearby. Close proximity of a high power transmitter on one antenna can result in a potentially damaging RF signal being applied to a receiver on a nearby antenna. If both transmitters are on the same band, the filter on the receiver won't help and receiver damage can occur. Connecting between transceiver and antenna, TRP-150 protects the rig during receiving and automatically bypasses it during transmitting. SO-239 for RF In/Out and phono jacks for radio and amp keys. Requires 12VDC for power. Tiny 2¼Wx2½Hx1¼D inches.

AMERITRON *HF Mobile* "Screwdriver" Antenna

1.2 kW... 3.5-30 MHz continuous ...1.5:1 VSWR...more!

SDA-100
$439.95
Suggested Retail

AMERITRON's SDA-100 is the best built, best looking, best performing HF mobile screwdriver antenna in the world! Properly installed on your vehicle this antenna covers 80-10 Meters with a 6 foot whip. Remove the whip for 40-6 Meters.

What makes our antennas stand above all the rest is that our CNC machined components are from aircraft aluminum or stainless steel and blueprinted, meaning you can take the antennas apart and mix them up, then reassemble and they work the same.

Our fiberglass coil form is approximately 2 inches in diameter. Other antenna builders know fiberglass is better but they choose not to use it because of the expense and difficulty in machining. We use 14 gauge wire for high power capability, wound at eight turns an inch for maximum efficiency. We machine groove our coils so they will not loosen up or jam -- they won't wear out, for years of trouble free service!

New Lexan cover is super durable and protects your Ameritron screwdriver for years of trouble-free service.

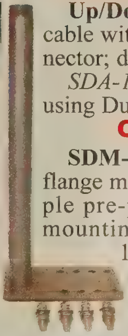
The decoupler we use is CNC machined for tight tolerances with custom fingerstock designed to contact 3 turns of coil all the time with over 25 pounds of combined contact pressure. With this design you can run up to 1.2 kilowatts PEP, trouble free. It's so superior to anything else on the market that we put our outstanding AMERITRON warranty behind it.

We use a new heavy duty Pittman commercial 12 volt gear motor, which is very durable and quiet while receive tuning. This motor is super heavy duty for years of trouble-free service. Antennas come with sensors already installed so if you add an auto controller, everything is ready.

The AMERITRON SDA-100 includes:

Up/Down switch; 5 feet of motor DC cable with detachable weather sealed connector; decoupling toroid matching coils.

SDA-100 comes in a handsome black, using Dupont Basecoat/Clearcoat system.



Optional accessories:

SDM-100, $99.95. Stainless steel flange mount base bracket , with multiple pre-punched holes. The SDA-100 mounting rod is a 1-in. pipe thread 14-inches long. Ship Code B.

SWP-100, $24.95. 6-ft stainless steel whip.

SMC-100, $4.95. Shunt matching coil with solder lugs. For use at base of mobile/screwdriver antennas with high SWR.

Combination Prices

SDA-110, $539.95. Combination SDA-100 mobile screwdriver antenna, SDC-100B auto-controller, and SWP-100 whip.

SDA-112, $569.95. Combination of SDA-100, SDC-102 and SWP-100.

SDA-113, $589.95. Combination of SDA-100 screwdriver antenna, SDC-103 auto-controller, and SWP-100 whip.

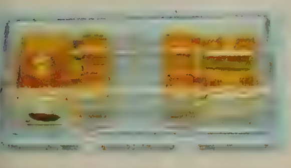
Ameritron Mobile Installation Accessories

ALS-500M DC Power Wire Harness

MIA-6, $69.95. Get an *extra* DC power harness for your ALS-500M amplifier. Saves you from the hassle of moving your amp cable assembly. Fully assembled 8 foot cable, fuse holders and fuses included.

In-Line Fuse Holder/Distribution Block

MIA-1, $6.95. AGU in-line fuse holder; heavy duty, waterproof, handles to 80A, 4-10 gauge wire, built-in mounting bracket.



MIA-2, $14.95. AGU *in-line* fused power distribution block; 1 input for 4 gauge wire, 2 outputs for up to 8-gauge wire, plastic cover with mounting ears.

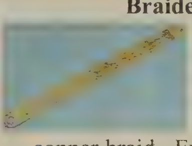
Remote Power ON/OFF for Amplifier

MIA-3, $59.95. 12 VDC Bosch relay. Turns amplifier high current DC supply line ON/OFF remotely with vehicle ignition switch. SPST, heavy duty dual contacts. Handles 75 Amps.

Battery Post Break-out Block

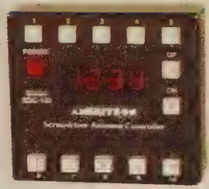
MIA-4, $14.95. Don't damage your amp because of poor battery connections. Replace old clamps with this gold metal battery break-out block. Has 4 AWG terminal for your auto battery and two 8 AWG connections for your amplifier.

Braided Ground Strips



MIA-5, $9.95. Makes solid grounding for your mobile radio or screwdriver antenna installtion. Made from ultra-fine tinned copper braid. Extremely flexible. 7/8-inch width, 13" long. 3/8" holes on each end.

Programmable *10-Memory* Screwdriver Controller


SDC-102
$129.95
Ship Code A

The SDC-102 lets you save *10* screwdriver antenna positions in memory. With a push of a button, you can quickly return to any saved position.

Up/Down buttons let you manually move the antenna to any desired position. A 4-digit turns counter with bright *see-in-the-sun* LEDs gives you precise antenna position.

The antenna always moves to its desired position from the bottom, insuring that the motor is always loaded the same.

Ameritron's *AutoPark*™ feature automatically bottoms your antenna for parking in your garage and *resets and calibrates* your counter each time to eliminate antenna slippage and turns count errors.

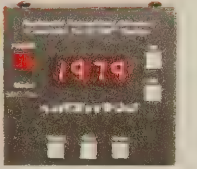
Ameritron's *Dead-OnSTOP*™ feature eliminates overshoot for dead-on stops.

Ameritron's *StallProtector*™ feature shuts off stalled motors to prevent motor burnout.

Motor current can be monitored for signs of trouble and to determine stall current.

Motor direction can be reversed so the UP button is always up. Compatible with single/dual magnetic sensors. $3\frac{1}{2}$Wx$3\frac{1}{4}$Hx$1\frac{1}{4}$D in.

Automatic Screwdriver Antenna Controller: Icom/Kenwood/Yaesu


SDC-104 K,I, Y
$159.95
Ship Code A

New!

Ameritron's SDC-104 is perfect for your Icom, Kenwood or Yaesu rig equipped with a CI-V interface. Connect the controller to your transceiver and the SDC-104 receives the frequency data and will *automatically* tune your screwdriver antenna. Has all the great features of the SDC-102 and includes rig the interface cable to receive frequency data. $3\frac{1}{2}$Wx$3\frac{1}{4}$Hx$1\frac{1}{4}$D inches.

SRS-100, $29.95. Magnetic sensor kit for High Sierra to use SDC-100/102/103. Not compatible with Sidekick™.

SRS-1001, $9.95. Magnetic sensor kit for Hi-Q antennas to use SDC-100/102/103.

Ameritron Digital Screwdriver Controller

SDC-100B
$109.95
Ship Code A

4-digit *super bright* LEDs tell exactly where your antenna is postioned! Re-tune *exactly* -- fast, no guessing.Digital count range -999 to +999. On/ off/ reset switch for easy calibration. 4Wx$1\frac{1}{2}$H x2D". Use 13.8VDC.

SRS-100, $29.95. Magnetic sensor kit for High Sierra. Not compatible with Sidekick™.

SRS-1001, $9.95. Mag sensor kit, Hi-Q Ant.

High Current Amplifier Power Cable

Highly flexible, 105 degrees celsius, 600 Volts, tinned copper PVC cable. PVC jacket is resistant to oil, fuel, acids, grease and abrasion. Intended for mobile installation.

Part# Red	Part# Blk	Cost/Ft	Description
871-1022	871-1000	.49	10AWG, 19/23, .176" OD
871-0822	871-0800	$1.32	8 AWG, 19/21, .217" OD
871-0622	871-0600	$1.84	6AWG, 49/22.5, .330" OD
871-0422	871-0400	$2.36	4AWG, 70/22.5, .380" OD

AL-80B Specifications:

Input: Circuit type: Pi-network, slug tuned coils.
Maximum VSWR at resonance: 1.3:1 or less.
Minimum 2:1 VSWR bandwidth: 20% of center frequency. **Max. drive power permissable:** 100 Watts.
Typical drive for full power output: 85 W.
Output:
Typical SSB PEP voice operation: 1000 Watts.
Typical CW operation: 800W
1/2 hour PEP two tone test: 800 Watts.
1/2 hour continuous carrier (RTTY): 500 Watts.
Power Supply:
Circuit type: Full wave voltage doubler.
No load voltage: 3000 Volts.
Full load voltage: 2700 Volts.
Full load current: .450 Amp.
Regulation: 10%.
Transformer: 26 pounds.
Capacitors: 33 uFd total, computer grade.
Maximum draw at rated output: 12 Amps.
AC Input: 120 V, 50/60 Hz.
Tubes:
Type: *Classic* 3-500G.
Continuous dissipation: 500 Watts.
Warm-up time: 5 seconds.
Metering:
Multimeter: reads HV, forward power, reflected power, SWR, ALC, ALC set.
Current Meter: Reads plate and grid current.
ALC:
True ALC 0-10V negative, front panel adjustable.
Efficiency CW: Typically 66% or greater.
***Efficiency SSB (envelope crest):** Approximately 66% or greater.
MARS/WARC:
Yes, set to the nearest band.
Connectors:
Keying: Supplies 100 mA when grounded, built-in back-pulse cancelling diode, protects the exciter. 12 VDC open circuit.
RF input:
SO-239, 50 Ohm input.
RF Out:
50 Ohms with full power into any SWR below 3:1.
Power:
NEMA 5-15P, 120 Volts.
Dimensions:
15½Dx14½Wx8½H inches.
Operating Weight: 48 lbs.
Shipping Weight:
Unit, 54 lbs.; Tube, 3 lbs.
Frequency Coverage:
Domestic model: 160, 80, 40, 30, 20, 17, 15 M. 10/12 M with modification. Must present FCC license at time of sale to obtain modification details.
Third Order IMD at Rated Output: -35 dB.

AL-572 Specifications:

Input: Circuit type: Pi-network, slug tuned coils.
Maximum VSWR at resonance: 1.3:1 or less.
Minimum 2:1 VSWR bandwidth: 20% of center frequency. **Max. drive power permissable:** 100 Watts.
Typical drive for full power output: 70 Watts.
Output: Typical SSB PEP voice operation: 1300 Watts nominal (7 MHz).
Typical CW operation:
900 Watts nominal.
1/2 hour PEP two tone test:
1000 Watts.
1/2 hour continuous carrier (RTTY): 650 Watts.
Power Supply:
Circuit type: Full wave voltage doubler.
No load voltage: 2800 Volts.
Full load voltage: 2500 Volts.
Full load current: .7 Amp.
Regulation: 14% or less.
Transformer: 21 pounds.
Capacitors: 33 mFd total, computer grade.
Maximum draw at rated output: 16 Amps.
AC Input: 120 V, 50/60 Hz.
Tubes: Type: *572B (x4).*
Continuous dissipation: 640 Watts.
Warm-up time: 5 seconds.
Metering:
Multimeter: reads HV, forward power, reflected power, SWR, ALC, ALC set.
Current Meter: Reads plate and grid current.
ALC:
True ALC 0-10V negative, front panel adjustable.
Efficiency CW: Typically 60% or greater.
***Efficiency SSB (envelope crest):** Typically 60% or greater.
MARS/WARC:
Yes, set to the nearest band.
Connectors:
Keying: Supplies 100 mA when grounded, built-in back-pulse cancelling diode, protects the exciter. 12 VDC open circuit.
RF input:
SO-239, 50 Ohm input.
RF Out:
50 Ohms with full power into any SWR below 3:1.
Power:
NEMA 5-15P, 120 Volts.
Dimensions:
15½Dx14½Wx8½H inches.
Operating Weight: 40 lbs.
Shipping Weight: 48 lbs.
Frequency Coverage:
Domestic model: 160, 80, 40, 30, 20, 17, 15 Meters. 10/12 Meters with modification. Must present FCC license at time of sale to obtain details.
Third Order IMD at Rated Output: -34 dB (below PEP rated output).

AL-82 Specifications:

Input:
Circuit type: Pi-network, slug tuned coils. **Maximum VSWR at resonance:** 1.2:1
Minimum 2:1 VSWR bandwidth: 20%.
Max. drive power permissable: 130 Watts. **Typical drive rated output:** 100 Watts
Output:
Typical SSB PEP voice operation: 1500 Watts.
Typical CW continuous operation: 1500 Watts.
30 second PEP two tone test: 1800 Watts plus.
1/2 hour PEP two-tone test: 1800 Watts.
Power Supply:
Circuit type: full wave bridge, capacitor input.
No load voltage: 3600 Volts.
Full load voltage: 3300 Volts.
Full load current: .8 Amp.
Regulation: 10% or better.
Transformer: 32 lb HypersilR, capacitors: 26 uFd total, computer grade. **Maximum draw at rated output:** 13 Amps.
AC Input: 240 V, 50/60 Hz.
Tubes:
Type: 3-500G *Classic* (2).
Continuous dissipation: 1000 Watts.
Warm-up time: 5 seconds.
Metering:
Multimeter: Plate current, plate voltage, drive/ALC, power output (PEP Watts).
Grid Meter: Reads PA grid current
ALC: Negative going, 0-20 V, phono jack
Efficiency CW: 65% typical.
***Efficiency SSB (envelope crest):** 62% typical.
MARS/WARC:
Yes, set to the nearest band.
Connectors:
Keying: engages amplifier when grounded. +12 VDC open circuit and supplies 100 mA when grounded. A built-in back-pulse cancelling diode protects the exciter.
RF input:
SO-239, 50 Ohm input.
Power:
NEMA 6-15P, 240 Volts.
Dimensions:
18½Dx17Wx10H inches.
Operating Weight:
76 pounds.
Shipping Weight:
Unit, 50 lbs.; Tubes, 6 lbs.; Transformer, 35 lbs.
Frequency Coverage:
Domestic model: 160, 80, 40, 30, 20, 17, 15 Meters. 10/12 Meters with modification. Must present FCC license at time of sale to obtain modification details.
Third Order IMD at Rated Output:
-34 dB at 1500 Watts Output.

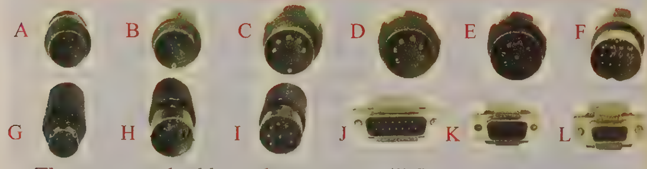
AL-1200 Specifications:

Input:
Circuit type: Pi-network, slug tuned coils.
Maximum VSWR at resonance: 1.2:1 or less.
Minimum 2:1 VSWR bandwidth: 20% of center frequency. **Max. drive power permissable:** 130 Watts.
Typical drive for full power output: 130 W.
Output:
Circuit type: Pi-L.
1/2 hour PEP two tone test:
1800 Watts.
30 second PEP two tone test:
1800 Watts plus.
Power Supply:
Circuit type: Full wave bridge, capacitor input.
No load voltage: 3600 Volts.
Full load voltage: 3300 Volts.
Full load current: .8 Amp.
Regulation: 10% or better.
Transformer: 32 lb. *Hypersil*ᴿ.
Capacitors: 26 uFd total, computer grade.
Maximum draw at rated output: 13 Amps.
AC Input: 240 V, 50/60 Hz.
Tubes:
Type: *Eimac*ᴿ 3CX1200Z7.
Continuous dissipation: 1200 Watts.
Warm-up time: 5 sec.
Metering:
Multimeter: Reads plate current, plate voltage, drive/ALC, power output (PEP Watts).
Grid Meter: Reads grid current.
ALC:
Negative going, 0-20 Volts, adjustable, phono jack.
Efficiency CW: 65%.
***Efficiency SSB (envelope crest):** 62%.
MARS/WARC: Yes, set to the nearest band.
Connectors:
Keying: Engages amplifier when grounded, +12 VDC open circuit and supplies 100 mA when grounded, built-in back-pulse cancelling diode protects the exciter.
RF input:
SO-239, 50 Ohm input.
Power:
NEMA 5-15P, 240 Volts.
Dimensions:
18½Dx17Wx10H in.
Operating Weight:
77 pounds.
Shipping Weight:
Unit, 50 lb., Tube, 5 lb., Transformer 35 lb.
Frequency Coverage:
Domestic model: 160, 80, 40, 30, 20, 17, 15 Meters. 10/12 Meters with modification. Must present FCC license at time of sale to obtain details.
Third Order IMD at Rated Output: -34 dB at 1500 Watts output.

AL-1500 Specifications:

Input: Circuit type: Pi-network, slug tuned coils.
Maximum VSWR at resonance: 1.3:1 or less.
Minimum 2:1 VSWR bandwidth: 20% of center frequency. **Max. drive power permissable:** 100 Watts.
Typical drive for full power output: 65 Watts.
Output:
Circuit type: Pi-L.
1/2 hour continuous carrier: 1500 Watts.
30 second continuous carrier: 2500 Watts plus.
1/2 hour PEP two tone test: 2500 Watts plus.
30 second PEP two tone test: 2500 Watts plus.
Power Supply:
Circuit type: Full wave bridge, capacitor input.
No load voltage: 3600 Volts.
Full load voltage: 3300 Volts.
Full load current: 1 Amp.
Regulation: 10% typical.
Transformer: 32 lb. *Hypersil*ᴿ. **Capacitors:** 26 uFd total, computer grade.
Maximum draw at rated output: 15 Amps.
AC Input: 240 V, 50/60 Hz.
Tubes:
Type: *Eimac*ᴿ 3CX1500/8877.
Continuous dissipation: 1500 Watts.
Warm-up time: 180 sec.
Metering:
Multimeter: Reads plate current, plate voltage, drive/ALC, power output (PEP Watts).
Grid Meter: Reads grid current.
ALC: Negative going, 0-20 Volts, adjustable, phono jack.
Efficiency CW: 65%.
***Efficiency SSB (envelope crest):** 62%.
MARS/WARC:
Yes, set to the nearest amateur band.
Connectors:
Keying: Engages amplifier when grounded, +12 VDC. 100 mA when grounded, built-in back-pulse cancelling diode protects the exciter.
RF input:
SO-239, 50 Ohm input.
Power:
NEMA 6-15P, 240 Volts.
Dimensions:
18½Dx17Wx10H in.
Operating Weight:
77 pounds.
Shipping Weight:
Unit, 50 lb., Tube, 3 lb., Transformer 35 lb.
Frequency Coverage:
Domestic model: 160, 80, 40, 30, 20, 17, 15 Meters. 10/12 Meters with modification. Must present FCC license at time of sale to obtain details.
Third Order IMD at Rated Output: -36 dB.

Ameritron Rig-to-Amplifier Interface Open-end Cables and Connectors



These open-end cables and connectors will fit most current HF transceivers. Select the open-end cable or a connector from the chart (right). For an ARB-704 cable, 600-5005 is also required. For an ALS-1306 cable, 610-3409K is also required. Pre-assembled amplifier-to-radio interface cables are available on pages 97, 99, 100 and 140.

Figure	Item Number	Price	Description	Radio Compatibility
A	620-8068H	$6.95	8-Pin Mini DIN, Male, 3 ft.	Kenwood TS-480 Yaesu FT-897/857/100/817/840/890/990
B	620-8060	$9.95	10-Pin mini DIN, Male, 3ft.	Yaesu FT-450/950/1200
C	620-8025BH	$4.95	5-Pin DIN, Male, 3 ft.	Yaesu FT-980
D	620-8027BH	$4.95	7-Pin DIN, Male, 3 ft.	Most Kenwood, ICOM ACC 2
E	620-8028BH	$4.95	8-Pin DIN, Male, 3 ft.	ICOM ACC
F	620-80213	$10.95	13-Pin DIN, Male, 3 ft.	ICOM IC-706/7000/718
G	600-6005	$3.95	5-Pin Mini DIN, Male Connector	Yaesu FT-847
H	600-5005	$3.95	5-Pin DIN, Male Connector	Ameritron ARB-704
I	600-5008B	$6.95	8-Pin DIN modified connector	Yaesu Band Data
J	610-3515K	$2.50	DB15 Male Connector	Yaesu FT-DX3000
K	610-3515HDK	$3.50	DB-15 Male High Density Connector	Elecraft
L	610-3409K	$2.50	DB-9 Female Connector	ALS-1306

AL-811/AL-811H Specifications:

Input:

Circuit type: Pi-network, slug tuned coils.

Maximum VSWR at resonance: 1.3:1

Minimum 2:1 VSWR bandwidth: 15%.

Max. drive power permissable: AL-811: 80 Watts; AL-811H: 100 Watts.

Typical drive rated output: AL-811: 60 Watts; AL-811H: 75 Watts

Output:

Typical SSB PEP voice operation: AL-811: 600 Watts, AL-811H: 800 Watts.

Typical CW operation: AL-811: 400 Watts; AL-811H: 600 Watts.

1/2 hour PEP two tone test: AL-811: 500 Watts; AL-811H: 650 Watts.

1/2 hour continuous carrier (RTTY): AL-811: 300 Watts input; AL-811H: 400 Watts input.

Power Supply:

Circuit type: full wave bridge.

No load voltage: 1700 Volts.

Full load voltage: 1500 Volts.

Full load current: AL-811: 550 mA; AL-811H: 650 mA.

Regulation: 10%.

Maximum draw at rated output: AL-811: 8 A; AL-811H: 10A.

AC Input: 120 V, 50/60 Hz (AL-811/H) 240 V, 50/60 Hz (AL-811X/AL-811HX).

Tubes:

Type: (AL-811: 3) (AL-811H: 4) 811A vertically mounted.

Continuous dissipation: 65 Watts per tube.

Warm-up time: 5 seconds

Metering:

Multimeter: reads HV and plate current.

Grid Meter: Reads PA grid current

ALC: Negative going, 0-20 V, adjustable, phono jack

***Efficiency SSB (envelope crest):** greater than 70%

MARS/WARC: Yes, set to the nearest band.

Connectors:

Relay: engages amplifier when grounded. +12 VDC open circuit and supplies 100 mA when grounded. A built-in back-pulse cancelling diode protects the exciter.

RF input: SO-239, 50 Ohm input.

RF Out: 50 Ohms with full power into any SWR below 3:1.

Power: NEMA 5-15P, 120 Volts.

Dimensions: 15$^{1}/_{2}$Dx13$^{3}/_{4}$Wx8$^{1}/_{4}$H inches.

Operating Weight: 32 pounds.

Shipping Weight: 41 pounds.

Frequency Coverage: Domestic model: 160, 80, 40, 30, 20, 17, 15 Meters. 10/12 Meters with modification. Must present FCC license at time of sale to obtain modification details.

Third Order IMD at Rated Output: -33 dB.

AL-800/AL-800H Specifications:

Input:

Circuit type: Pi-network, resistor attenuated/slug tuned coils.

Maximum VSWR at resonance: 1.3:1 or less.

Minimum 2:1 VSWR bandwidth: within +20% or -40% of selected band/ within 20% of center frequency.

Max. drive power permissable: 100 Watts.

Typical drive for full power output: 70/55Watts.

Output: Circuit type Pi/Pi-network output.

Typical SSB PEP voice operation: 1250/1500+W

Typical CW continuous operation: 1000/1500 W.

1/2 hour PEP two tone test: 1000/1500 Watts.

1/2 hour continuous carrier (RTTY): 750/1000 W.

Power Supply: Circuit type: Full wave voltage doubler.

No load voltage: 2600 Volts.

Full load voltage: 2300/2250 V.

Full load current: 1/1.2 A.

Regulation: 12% $^{\text{or}}$less/15%.

Transformer: 32 lbs grain oriented El lamination.

Capacitors: 78/63 uFd total, high current computer grade.

Maximum draw at rated output:12/13A@240 VAC. Typical line current at 1500 Watt PEP output. 9A at 240 VAC. Power line current in standby: .5 A at 240 VAC.

AC Input: 120V, 50/60 Hz.

Tubes: *Eimac*^{R} 3CX800A7.

Continuous dissipation: 800W per tube, 1600W total.

Warm-up time: 180 seconds.

Estimated life: 6,000-8,000 hours ICAS.

Metering: *Multimeter:* reads *Peak* forward power, *Peak* reflected power, SWR, ALC threshold output voltage, and high voltage.

Current Meter: Reads plate and grid current.

ALC: Negative going, 0-10 V, phono jack output, front panel adjustments.

Efficiency CW: Approximately 65-66% or greater.

Eff. SSB (envelope crest): Approx. 66% or greater.

MARS/WARC: Yes, set to the nearest band.

Connectors:

Keying: Requires contact closure or sink of +12 VDC at 100 mA, back pulse protected, phono jack.

RF input: SO-239, 50 Ohm input.

RF Out: 50 Ohms with full power into any SWR below 3:1.

Power: NEMA 5-15P, 120/240 Volts.

Dimensions: 17$^{1}/_{4}$Dx14$^{1}/_{2}$Wx8$^{1}/_{2}$H in.

Operating Weight: 51/52 lbs.

Shipping Weight: Unit, 59/60 lbs,; Tubes, 3/5 lbs.

Frequency Coverage: Domestic model: 160, 80, 40, 30, 20, 17, 15 Meters. 10/12 Meters with modification. Must present FCC license.

Third Order IMD at Rated Output: -35 dB.

ALS-500M Specifications:

Frequency Coverage: **(US)** 1.5 to 22 MHz continuous; **(Export)** 1.5-30 MHz continuous.

Input: Circuit type: Broadband, resistor swamped.

Maximum VSWR at resonance: 1.5:1.

Bandwidth: Broadband.

Maximum drive power permissible: 100 Watts.

Typical drive for rated output: 60 Watts.

Output: Circuit: Broadband, low pass.

Typical SSB PEP voice operation: 500 Watts PEP.

Typical CW operation: 400 Watts.

Power requirement for amplifier: 14-16 VDC, 80A (peak).

Output devices: Transistor, (4) 2SC2879.

Metering: Current meter, 0-100 A.

ALC: None.

Efficiency CW: 40%.

Efficiency SSB: (envelope crest) 45%.

MARS/WARC: Yes, continuous coverage.

Keying: Relay closure or sinking to ground of +12 VDC at 100 mA, RCA phono jack.

Power Supply connector: Beau multi-contact male chassis mount.

Power Supply Cable: 8 foot pre-wired with Beau connector on one end; other end with 5/8 inch ring lugs, 10 gauge wire (x2), in line fuse holders, fuses included.

RF Connectors: SO-239 for input and output.

Dimensions: 15$^{1}/_{2}$Dx8$^{7}/_{8}$Wx3$^{3}/_{4}$H in.

Operating Weight: 7.5 lbs.

Shipping Weight: 12 lbs.

Third Order IMD at rated Output: -35 dB PEP or better.

ALS-600SPS Switching Power Supply Specs:

Line Input: 120 VAC/240 VAC.

Output: 50 VDC, 25 Amps, +/-14 VDC, 1 A.

Metering: Cross-needle for volt/amp.

Output Cable: 6 foot prewired cable with Beau multi-contact connector to mate with ALS-600 amplifier.

Dimensions: 12Dx9^{1}/2Wx6H inches.

Operating Weight: 9 lbs.*

Shipping Weight: 15 lbs.*

AC Line Connector: NEMA-5-15P.

Note: * Total Shipping weight for ALS-600 Amplifier and ALS-600SPS power supply is 33 lbs., shipped together.

ALS-600 Specifications:

Frequency Coverage: **(US)** 1.5 to 22 MHz continuous; **(Export)** 1.5-30 MHz continuous.

Input: Circuit type: Broadband, resistor swamped.

Maximum VSWR at resonance: 1.5:1.

Bandwidth: Broadband.

Maximum drive power permissible: 100 Watts.

Typical drive for rated output: 100 Watts.

Output: Circuit: Broadband, low pass.

Typical SSB PEP voice operation: 600 Watts PEP.

Typical CW operation: 500 Watts.

Power requirement for amplifier: 50 VDC, 25 Amps, +/-14 VDC, 1 Amp.

Output devices: Power MOSFET (4) MRF-150.

Metering: Amplifier-Cross-needle meter for VSWR, FWD, reflected true peak indicating wattmeter.

ALC: Negative going 12 VDC, adjustable, RCA phono jack.

Efficiency CW: 50%.

Efficiency SSB: (envelope crest) 55%.

MARS/WARC: Yes, continuous coverage.

Keying: Relay closure or sinking to ground of +12 VDC at 100 mA, RCA phono jack.

Power Supply connector: Beau multi-contact male chassis mount.

RF Connectors: SO-239 for input and output.

Dimensions: 9$^{1}/_{2}$Wx6$^{1}/_{2}$Hx12D inches.

Operating Weight: 12.5 lbs.

Shipping Weight: 18 lbs. (amp only).

Third Order IMD at rated Output: -35 dB PEP or better.

ALS-600PS Power Supply Specifications:

Line Input: 120 VAC/240 VAC.

Output: 50 VDC, 25 Amps, +/-14 VDC, 1 Amp.

Metering: Cross-needle for volt/amp.

Output Cable: 6 foot prewired cable with Beau multi-contact connector to mate with ALS-600 amplifier.

Dimensions: 9$^{1}/_{2}$Wx6$^{1}/_{2}$Hx12D inches.

Operating Weight: 32 lbs.*

Shipping Weight: 37 lbs.*

AC Line Connector: NEMA-5-15P.

Note: * Total Shipping weight for ALS-600 Amplifier and ALS-600PS power supply is 57 lbs., shipped together.

ALS-1300/ALS-1306 Specifications:

ALS-1300 Frequency Coverage: (US) 1.5 to 22 MHz continuous; **(Export)** 1.5-30 MHz continuous.

ALS-1306 Frequency Coverage: 1.5 to 54 MHz continuous (excluding 27 MHz).

Input: Circuit type: Broadband, resistor swamped.

Maximum VSWR at resonance: 1.5:1.

Bandwidth: Broadband.

Maximum drive power permissible: 100 Watts.

Typical drive for rated output: 100 Watts.

Output: Circuit: Broadband, low pass.

Typical SSB PEP voice operation: 1200 Watts PEP.

Typical CW operation: 1000 Watts.

Power requirement for amplifier: 50 VDC, 50 Amps, +/- 14 VDC, 2 Amps.

Output devices: Power MOSFET (8) MRF-150.

Metering: *Two Cross-Needle Meters* for VSWR, FWD, REF true peak indicating wattmeter, ALC, high voltage PA1 and PA2. Constant current monitor PA1 and PA2.

ALC: Negative going 12 VDC, adjustable, RCA phono jack.

Efficiency CW: 50%.

Efficiency SSB: (envelope crest) 55%.

MARS/WARC: Yes, continuous coverage.

Keying: Relay closure or sinking to ground of +12 VDC at 100 mA, RCA phono jack.

Power Supply connector: Beau multi-contact male chassis mount.

Bandswitch:

ALS-1300, manual or use optional Radio Interface, ARI-500 and radio interface cable.

ALS-1306, manual or automatic with built-in automatic bandswitch. Requires optional radio interface cable.

RF Connectors: SO-239 for input and output.

Dimensions: 18Dx10Wx6$^{1}/_{2}$H inches.

Operating Weight: 22 lbs.

Shipping Weight: 27 lbs.

Third Order IMD at rated Output: -35 dB PEP or better.

ALS-1300/ALS-1306 *Included* Switching Power Supply Specifications:

Line Input: 120 VAC@30 Amps
240 VAC@14 Amps (Default)

Output: 50 VDC, 50 Amps, +/-14 VDC, 2 A.

Output Cable: 6 foot prewired cable with Beau multi-contact connector to mate with ALS-1300/ALS-1306 amplifier.

Dimensions: 9$^{1}/_{2}$Dx10Wx6$^{1}/_{2}$H inches.

Operating Weight: 15 lbs.*

Shipping Weight: 20 lbs.*

AC Line Connector: NEMA-6-15P.

Note: * Total Shipping weight for ALS-1300/ALS-1306 Amplifier and power supply is 49 lbs., shipped together.

* Exact performance measurements may vary due to the accuracy of test equipment and the measurement methods used. *(Prices and specifications subject to change without notice or obligation).*

AMERITRON *True Legal Limit*™ Tuner

Easily handles 1500 Watts continuous carrier even on 160 Meters . . . High-current edge-wound silver plated Roller Inductor . . . Two 500 pf high capacitance tuning capacitors with 6:1 vernier reduction drives . . . 3 core choke balun . . . Six position antenna switch . . . True peak reading Cross-Needle SWR/Wattmeter . . .

- ***Handles well over 1.5 kW carrier***
- ***Super High Current edge-wound silver plated Roller Inductor***
- ***500 pf tuning capacitors with 6:1 vernier reduction drives***
- ***3 core choke balun***
- ***6 position antenna switch***
- ***True peak reading meter with LED Meter Light***

AMERITRON's ATR-30 *True Legal Limit*™ roller inductor antenna tuner is ham radio's toughest! It'll handle 1500 Watts *continuous carrier output* on *all* modes and *all* HF bands into most antennas -- even on 160 Meters where most antenna tuners fail.

It's perfect for Ameritron's most powerful amplifiers where the ATR-30 just loafs.

All band coverage lets you operate 1.8-30 MHz including all MARS and WARC bands.

Super High Current Roller Inductor

You'll see Ameritron's new *super high current* air core roller inductor. It's *edge wound* from a thick solid copper strip and silver plated.

This produces a large surface area and a massive conductor. It can carry huge circulating RF currents and withstand tremendous heat that'll melt or burn ordinary roller inductors.

A gear driven turns counter and crank knob gives you precise inductance control.

Two 500 pf Tuning Capacitors

ATR-30
$\$599^{95}$
Suggested Retail

INDUCTANCE
AMERITRON
ATR-30
ANTENNA TUNER

Two 500 pf -- *the highest of any antenna tuner* -- variable transmitting capacitors give you no-arc wide range impedance matching for true high power performance.

6:1 vernier reduction drives makes capacitor tuning smooth and easy.

Super Balun, 6 position Antenna Switch

Super heavy duty three core choke balun lets you match virtually any balanced feedline antenna without core saturation.

A 6 position antenna switch lets you select your desired operating antenna.

Read *true* Peak Power

Ameritron's active electronic *true* peak reading meter accurately reads forward and reflected power and SWR *simultaneously* on a super-bright LED lighted Cross-Needle meter.

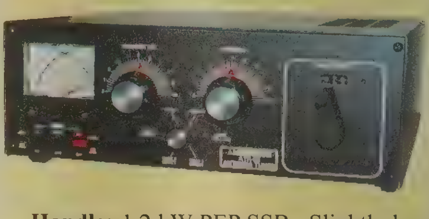
Roomy Cabinet maintains High-Q

Roomy extra-strong .080 inch thick aluminum cabinet gives highest efficiency and lowest loss. $13^1/_4$Wx$5^5/_8$Hx$17^1/_2$D inches.

Legendary After-Sale Service

Has Ameritron's superb one year limited warranty with legendary customer service.

ATR-20 Antenna Tuner . . . ATR-20, $459.95.



Handles 1.2 kW PEP SSB. Slightly less on 160 Meters. $13^1/_2$W x$5^1/_2$H x$13^1/_4$D in.

Roller inductor T-network, peak reading SWR/Wattmeter with super-bright LED.

Covers 1.8-30 MHz, 6 position antenna switch, balun.

Great for Ameritron's widely popular one killowatt AL-80B Amplifier!

Precision Single Needle SWR/Wattmeters

AWM-20
$\$89^{95}$
Suggested Retail

These precision, compact meters feature peak and average, forward and reflected power reading and SWR.

Each model has different selectable power ranges.

A highly visible black and red meter scale on a bright, white background makes it quick and easy to read SWR, Forward or Reflected power at-a-glance.

Large $2^5/8$x$1^1/4$" lighted meter Lamp requires 13.8 VDC or 110 VAC operation. SO-239 connectors with gold-plated center pins, all metal cabinet with rubber feet. Compact 6Wx$2^1/2$H x4D inches.

Choose from 3 models.

Model	Price	Frequency	Power	Power Ranges
AWM-20	$\$89^{95}$	1.6-60 MHz	kW	20/300/3kW
AWM-22	$\$89^{95}$	1.8-200 MHz	200 W	5/20/200W
AWM-24	$\$119^{95}$	1.8-525 MHz	200 W	5/20/200W

Fan Cooled Dry Dummy Load

ADL-2500
$\$219^{95}$
Suggested Retail

AMERITRON's 2500 Watt *fan cooled* dummy load handles any legal limit amplifier, and lets you tune-up your expensive amplifier fast and super easy. Works with all amplifiers, transceivers and transmitters from DC through 6 Meters.

It can dissipate 2500 Watts average power for one minute on, ten minutes off. Handles 300 Watts continuous. SWR is less than 1.25 to 1 below 30 MHz and less than 1.4 from 30 to 60 MHz.

Four 50 Ohm non-inductive super high energy density resistors are used. Each has an incredibly high energy density of 7000 joules per cubic inch per second with a voltage gradient of 10 kV per inch!

Detailed specifications/power curve are permanently silk-screened on the cabinet for easy reference. Uses 12 VDC. $9^1/_2$Dx$8^1/_4$ Wx4H in. Has SO-239 connectors. 5 lbs.

Legal Limit Oil-filled Dummy Load

AMERITRON
High Power Dummy Load
ADL 1500
SPECIFICATIONS
AMERITRON
116 Willow Road
Starkville MS 39759

ADL-1500X
$\$54^{95}$
Without Oil.
Suggested Retail
ADL-1500
$\$74^{95}$
Oil included.

AMERITRON's Legal Limit oil filled dummy load lets you run the maximum legal limit of 1500 Watts for a full five minutes.

ADL-1500 has high quality industrial grade transformer oil (no PCB) and heavy duty 50 Ohm resistor.

AMERITRON's Legal Limit oil filled dummy load gives you SWR under 1.2 to 30 mHz and low SWR to 400 MHz.

Durable, sturdy gallon can measures $7^1/_2$Hx$6^5/_8$D inches. Detailed specifications and power curve.

Order ADL-1500 with industrial grade transformer oil. Order ADL-1500X without oil.

ADL-21, $29.95. 1 Gallon Industrial Grade Transformer oil.

AMERITRON RCS-4 *Remote Coax Switch*

Now covers 6 Meters . . . improved relays . . . Greater Power Handling!

AMERITRON
RCS-4 RELAY BOX

RCS-4
$\$159^{95}$
Suggested Retail

Ameritron RCS-4 is a remote controlled coax switch that selects 1 of 4 outputs by supplying all control voltages through the coax.

Elimination of control cables gives you a fast, neat and inexpensive installation -- *only 1 coax line for 4 antennas*.

You get two units -- the switching box ($5^{3}/_{8}$Dx7Wx3H inches.) that can be tower, mast or wall mounted and the control console ($6^{1}/_{8}$Dx$5^{1}/_{4}$Wx $3^{3}/_{8}$H inches.) that is located at your operating station.

The attractive indoor console has bright LED antenna selector indicators.

A steel enclosure provides 100% shielding to prevent RFI and TVI.

Switching time is 50 milliseconds. *Teflon*$^{(R)}$ SO-239 connectors provide reliable connections.

The weatherproof switching box uses three heavy duty 16 ampere hermetically sealed relays on a rugged G-10 fiberglass circuit board.

Lightning Protected
model RCS-4L, $\$199^{95}$

Quality components are used throughout the entire unit to ensure maximum life for the sometimes difficult-to-reach switching box.

RCS-4 operates 120 VAC. RCS-4X for 220/240 VAC. RCS-4 allows safe operation with 14 Volts control voltage.

Frequencies 1.5 - 100 MHz are covered by this excellent station accessory. Handles over 2.5 kW.

Specifications:

4 positions; **Loss** at 30 MHz less than 0.1 dB; VSWR is under 1.25:1, 1.5-60 MHz; **Impedance:** 50 Ohms; **Power:** >2.5 kW PEP, 1.5 kW average.

RCS-8V HF to VHF/UHF Remote Coax Switch

AMERITRON
ANT5

Ameritron's Remote Coax Switch lets you remotely switch up to five separate antennas using one inexpensive small control ine (like standard telephone wire) --

RCS-8V
$\$169^{95}$
Suggested Retail

Eliminate a tangle of troublesome coax and have a simple and neat installation -- with just a single feedline.

The RCS-8V consists of two units -- the weatherproof switching box that mounts on your tower or mast and the control unit that's placed at your operating station.

VSWR is less than 1.2 from DC to 250 MHz and less than 0.1 dB loss at 150 MHz -- great for the HF/VHF/UHF operator.

It handles over 5 kW below 30 MHz and 1 kW at 150 MHz. You can ground unused positions or leave them open.

The indoor control unit is all metal to prevent RFI and TVI. It also has LEDs to indicate the antenna you've selected.

A Lexan scratch-proof panel has a markable surface for labeling your antenna positions.

RCS-8V operates from a 120 VAC power source or RCS-8VX for 220/240 VAC. Use any 6 conductor control line (not supplied) and allows safe operation with 14V control voltage.

Lightning Protected
model RCS-8VL, $\$209^{95}$

RCS-8VN, $179.95. Same as RCS-8V but has N- type connectors instead of SO-239.

SPECIFICATIONS:

Number of antenna positions: 5.
Loss at 150 MHz: less than 0.1 dB.
VSWR: under 1.2:1 from DC to 250 MHz.
Impedance: 50 Ohms. **Power Capability:** 5 kW PEP below 30 MHz, 2.5 kW average.
Power requirements: 12 VDC @ 100 mA. AC adapter supplied. **Connectors:** *Teflon*$^{(R)}$ SO-239 for RCS-8V; "N" for RCS-8VN.
Control Box: 6Dx$6^{1}/_{8}$W x$2^{1}/_{4}$H inches.
Switch Box: $5^{3}/_{8}$Dx7Wx3H inches.

RCS-10 *Remote* Coax Switch with 8 positions

AMERITRON
RCS-10/12 L RELAY BOX
AMERITRON

Ameritron's RCS-10 remote coax witch selects one of eight antennas using n inexpensive three or four conductor conrol line (such as standard telephone wire).

Eliminate a tangle of troublesome coax nd have a simple and neat installation -- with just a single coax feedline.

RCS-10
$\$179^{95}$
Suggested Retail

The RCS-10 consists of two units -- the weatherproof switching box that mounts on your tower or mast and the control unit that's placed at your operating station.

Outdoor Unit Features:

Inexpensive and simple wiring: selects up to eight antennas using one four conductor telephone type control line.

High Power Capability: The RCS-10 relay box will handle over 5 kW into matched loads below 30 MHz.

SPECIFICATIONS:

Long Relay Life: UL/CSA/VDE approved sealed relays with 16 ampere switching current rating. Tested to withstand 1200V RMS. **Flexible Mounting:** RCS-10 hardware accepts mast sizes from 1 inch to 2 inches. **Reliable Connectors:** Teflon UHF-style SO-239 females, internal barrier strip for control lines. **Low Voltage:** Requires 10-15 Volts at less than 300 mA. **Number of Antenna Positions:** 8. **Frequency Coverage:** DC to 100 MHz.

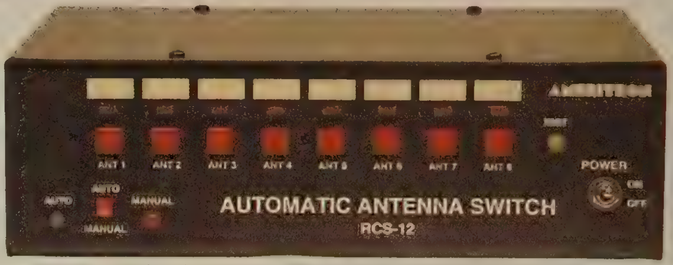
Lightning Protected
model RCS-10L, $\$219.95$

VSWR: Under 1.25:1 below 30 MHz; Under 1.3:1 below 60 MHz; Under 1.8:1 below 150 MHz.
Impedance: 50 Ohms.
Power Capability: 5 kW PEP, 2.5 kW average into 50 Ohms below 30 MHz.
Power Requirement: RCS-10, 10-15 VDC or 120 VAC with AC adaptor supplied. RCS-10X, 10-15 VDC or 230 VAC with AC adaptor supplied. **Relay Switch Control Line:** 4 conductors telephone-type cable, not supplied. **Relay Control Line Voltage:** 10-15 VDC at less than 300 mA. **Flexible Control Box with External Interface:** Accepts and outputs one-of-eight and outputs three-line BCD data to remote relay unit. **Highly Weather Resistant:** Sealed relays, stainless hardware, and U-V resistant cover. **Easy-to-Read Antenna Indicators:** Eight wide-spaced LED's indicate the selected antenna. **Size:** *Control Box:*$6^{1}/_{4}$Wx$3^{1}/_{4}$Hx$4^{5}/_{8}$D in.

AMERITRON Automatic Remote Antenna Coax Switch

Automatically reads data from your transceiver and selects up to 8 pre-programmed antennas . . .

RCS-12C
$239^{95}
Suggested Retail



The RCS-12 is an automatic remote antenna switch. It reads information from the transceiver and selects the pre-programmed antenna automatically. Programming is as easy as a push of a button. It works with most Icom, Yaesu, Kenwood and other rigs that have a band data output line. It has a manual/automatic switch that will allow manual selection of antennas as well. It has eight LEDs to indicate which antenna is selected.

RCS-12 stops expensive antenna switching damage. No HOT switching with the RCS-12! It's late at night, there's a run of stations going, and the operator pushes a button. SWR shoots up! Even if the *SWR Watch Protection* kicks in, you still lose your run frequency while you look to see what happened, if you notice at all! At best you only lose your run frequency; at worse you lose an amplifier or antenna switch.

You've learned a painful lesson! The cost of a blown bandswitch or antenna relay pales in comparison to the price of a contest. You'll never know if this was your year because a split-second error turned you from a winner to a loser. It's another year before you can try again.

With a properly connected and programmed RCS-12 it is impossible to pick the wrong antenna. It is impossible to damage equipment by switching antennas while transmitting.

You no longer have to hover over guest operators like a mother hen; RCS-12 will not let them make an antenna switching mistake. Ameritron's RCS-12 is compatible with virtually any antenna switching system. It works with BCD or one-of-eight outputs, and is fully compatible with 12 or 24 volt relay systems.

RCS-12 can handle directional control of two four-squares, or one four-square along with an assortment of other antennas. It can handle up to eight individual antennas. Any single position or combination of positions can be programmed for any particular band. The operator pushes an antenna selector button and the RCS-12 takes over.

The RCS 12 monitors the amplifier keying line. It prohibits antenna relay transfers while your amplifier is active. Simultaneously, it remembers what antenna function the operator called for. It switches at the first amplifier drop. It holds the amp off until switching is complete and relays are settled.

It monitors the band data from radios. The internal band decoder knows which groups of switch positions are allowed on each band. It prevents a distracted operator from picking the wrong switch position. When the radio changes bands the RCS-12 goes to the last antenna used for that band.

RCS-12 makes it impossible to put the radio on the wrong antenna. It's impossible to switch relays while the amplifier is on, whether you are switching stacks, directions, or antenna arrays or any combination of the three. RCS-12 works with four-squares, stacking systems, directional arrays and other combos of up to 8 antenna selections.

***Not** compatible with Kenwood TS-480, or TS-2000 transceivers.

Measures 8^1/4Wx2^1/4Hx7D". 1.5 lbs.

RCS-12, $309.95 includes automatic controller and 8 position relay box. Covers DC to 100 Mhz and handles over 5KW @ 50 ohm below 30 MHZ. Powered with 10-15VDC or with 120VAC adaptor, included. Order RCS-12X for 220VAC operation.

RCS-12L, $349.95 RCS-12 with lightning surge protection.

RCS-12C, $239.95. Automatic Controller only. 110VAC, compatable with RCS-8V/RCS-10 outdoor relay boxes.

ALS-1306/RCS-12 Rig Interface Cables

DB-13D	**Icom IC-706/7000/718 & others w/13P din**	
DB-7DI	**Icom with ACC2 7-pin din**	$24^{95} Each
DB-DB7DK	**Kenwood with DB9 except 480**	
DB-DB8MK	**Kenwood TS-480**	
DB-8MY2	**Yaesu FT-897857/100/817/840/890/990**	
DB-8DY	**Yaesu with standard 8 din Band data**	
DB-10MY	**Yaesu FT-450/950/1200**	
DB-DB15Y	**Yaesu FT-DX-3000**	
DB-DB15HE	**Elecraft**	

AMERITRON EXTENDED WARRANTY PLAN

Ameritron's extended warranty plan is the same as the original warranty, just extended for the amount of months described on your purchase invoice. The extended warranty warrants to the purchaser that if the product should fail during the agreed term, Ameritron has the option to repair or replace part (s) except tube and output transistors) and provide necessary labor free of charge. Warranty repair can only be done at the Ameritron facility. Purchaser must return defective product to Ameritron prepaid in its original packing or equivalent. Ameritron is not responsible for loss or damage due to shipping.

WHAT IS COVERED

Necessary labor done at Ameritron to repair the product back to specifications. Return shipping (within the United States at Ameritron's choice of shipping) with insurance at replacement cost.

WHAT IS NOT COVERED

Repairs done by unauthorized Ameritron facility. Returning of product to Ameritron facility. Shipping and labor to replace light bulbs and fuses accessible by the owner. Parts damaged due to shipping damage. Parts damaged due to misuse, neglect, intentional, accidental or improper installation. Cosmetic defects, dents, scratches, peeling, rusting, corrosion and chips. Maintenance and cleaning. Flood, fire, lightning and any other act of nature. PA tubes and RF Output Transistors (shipping and labor are covered). Unauthorized modifications made to the product. Returning of product with no problem detected. Return shipping is NOT covered on products sent in for services listed under *"What is NOT covered"*.

HOW TO ORDER

If your Ameritron product is still within its original warranty, contact Ameritron by phone, fax, mail or email with model of product, serial number, date of purchase and dealer purchased from.

If your Ameritron product was purchased used or is out of its original warranty, the product will need to be sent to Ameritron production facility prepaid shipping for evaluation.

Call 1-662-323-8211. Use the chart (right) to order a one year or two year extended warranty plan.

For full details of the warranty plan, call Ameritron direct, 1-662-323-8211. Customer must contact Ameritron factory before shipping.

Amp Model #	**1 Year ext. Warranty**	**2 Year ext. Warranty**
AL-1500	$198.00	$360.00
AL-1200	$198.00	$360.00
AL-82	$192.00	$346.00
AL-572	$145.00	$240.00
AL-80B	$145.00	$240.00
AL-800	$145.00	$240.00
AL-800H	$198.00	$359.00
AL-811	$119.00	$198.00
AL-811H	$132.00	$225.00
ALS-1300	$225.00	$333.00
ALS-1306	$260.00	$386.00
ALS-600	$119.00	$199.00
ALS-600S	$126.00	$210.00
ALS-500M	$92.00	$153.00
ATR-30	$65.00	$99.00
ATR-20	$46.00	$69.00

Ship to address: *Ameritron, 116 Willow Road, Starkville, MS 39759.*

For Technical Information or parts order: Call (662) 323-8211

For service, return amplifier with letter of explanation to:

AMERITRON, 116 Willow Road, Starkville, MS 39759, USA. **email:** go to: ***www.ameritron.com***

*All products manufactured by AMERITRON have a one year limited warranty. Ameritron's AL-80B amplifier carries a two year limited warranty. *All transmitter tubes are warranted by the tube manufacturers. Prices and specifications subject to change without notice or obligation. *Except as noted.* (c) 2014 AMERITRON.

AMERITRON is an authorized *Eimac* $^{(R)}$ Tube Distributor . . .

- *Eimac*^{R} 3CX1200A7 - $1995 • Eimac^R 3CX1200Z7, $1595 • *Eimac*^{R} 3CX1500A7/8877 - $1650 • IMPORT 3CX1500A7/8877, $695
- GRAPHITE 3-500GZ - $219 • *Eimac*^{R} 3CX800A7 - $945 • IMPORT 3CX800F, $695
- 572B (1) - $69.95 • 811A - (1) - $24.95; (2 match) - $54.95; (3M) - $79.95; (4M)- $109.95

Cushcraft
Amateur Radio Antennas

2015 Ham Catalog

A Cushcraft Antenna
would look great in
your backyard too . . .

Cushcraft Amateur Radio Antennas
308 Industrial Park Road
Starkville, MS 39759
1-662-323-9538
www.cushcraftamateur.com

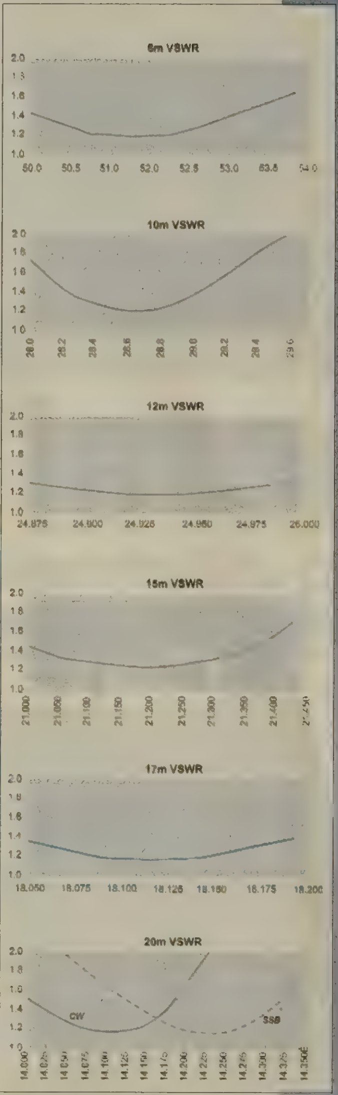
Cushcraft R-6000 Multiband HF Vertical 6-20 Meters

Multi-band 6-20 Meters, No Radials, No Tuning, Handles 1500Watts

The R-6000 is a 6 through 20 meter, no ground radial antenna. It includes many of the features of the R8, R7 and R5 antennas. R-6000 means excellent performance, easy installation and use, slim silhouette and high reliability. There are no traps used on 6, 10 and 15 meters for maximum efficiency and power handling.

- **EASY INSTALLATION**
  For typical use, tuning is not required
- **INSTANT BAND CHANGING**
  To any band 6 through 20 Meters
- **SLIM SILHOUETTE**
  Gain favor of family and neighbors with the slim, low profile of the R6000
- **6 METER OPERATION**
  Join the fun of the "Magic Band" and take advantage of the new HF/50 MHz transceivers
- **AFFORDABLE PRICE**
  Cushcraft delivers the best quality and performance at a price no one else can match

Specifications:	R-6000
Frequency,meters	6, 10, 12, 15, 17, 20
Gain (dBi)	3
VSWR at resonance	1.2:1 typical
2:1 bandwidth, KHz	6m >1300 10m >1700 12m >100 15m >450 17m >100 20m 300
Power Watts PEP (FM)	1500 (500)
Radiation angle, deg.	16
Horizontal rad, deg.	360
Height, ft (m)	20.5 (6.25)
Mast size range, in (cm)	1.5 -1.75 (3.8-4.4)
Wind load, ft2 (m2)	1.5 (.14)
Weight, lb (kg)	16 (6.25)
Shipping Dimensions	7"x 4.5" x 63"



R-6000
$429.95

The R-6000 employs quarter wavelength stubs on 10 and 15 Meters to replace standard trap coils. The result is lower loss and wider bandwidth. The R-6000 covers all bands 6 through 15 meters at a VSWR under 2:1. On 20 meters you can select the top 300 KHz or bottom 300 KHz of the band.

The R-6000 weighs only 12-1/2 pounds (5.6 kg). It is lightweight and easy to mount for portable or permanent installations. Machined aluminum clamps and UV stable insulators guarantee years of reliable service. The R-6000 comes with the standard warranty of one year from purchase - plus the industry's leading technical support team stands behind each antenna.

The R-6000 makes an excellent diversity antenna to complement even the most complete stations, or pack up the R-6000 for a trip to the DX location of your dreams.

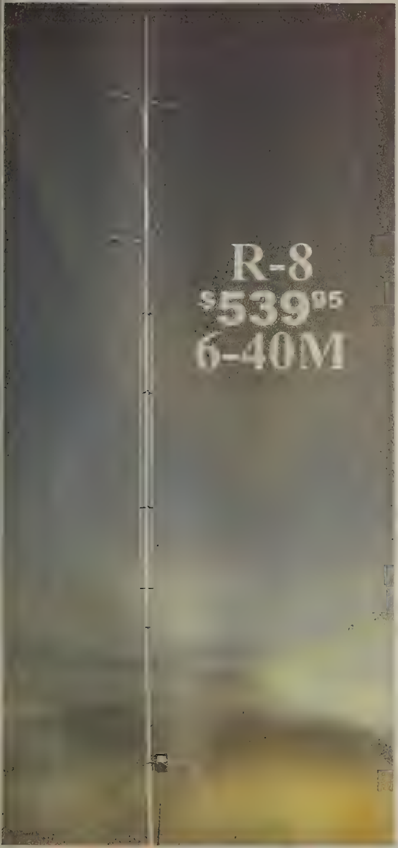
Cushcraft HF Vertical Antennas

6-80 Meters

Cushcraft R8 and R9 cover 6, 10, 12, 15, 17, 20, 30, 40 Meters . . . and the new R9 expands coverage to . . . . 80 Meters!

- ***NO GROUND RADIALS NEEDED***
- ***RUGGED CONSTRUCTION***
- ***INSTANT BAND CHANGING***
- ***SLIM, LOW PROFILE SILHOUETTE***

6-40 Meters


R-8
$539⁹⁵
6-40M

Cushcraft's world famous R8 now has a big brother!

Big Brother R9 now includes 75/80 Meters for local ragchewing and worldwide low band DX *without radials*!

It's omni-directional low angle radiation gives you exciting and easy DX on all 9 bands: 75/80, 40, 30, 20, 17, 15, 12, 10 and 6 Meters with low SWR. QSY instantly -- no antenna tuner needed.

Use full *1500 Watts* SSB/CW when the going gets tough to break through pileups and poor band conditions.

The R9 is super easy to assemble, installs just about anywhere, and its low profile blends inconspicuously into the background in urban and country settings alike.

Compact Footprint: Installs in an area about the size of a child's sandbox -- no ground radials to bury with all RF-energized surfaces safely out of reach.

Rugged Construction: Thick fiberglass insulators, all-stainless steel hardware and 6063 aircraft-aluminum tubing is double or triple walled at key stress points to handle anything Mother Nature can dish out.

R9 is 31.5 feet tall, 25 lbs. Mounting mast 1.25 to 2 inches. Wind surface area is 4 square feet. Wind survivability is 60 MPH.

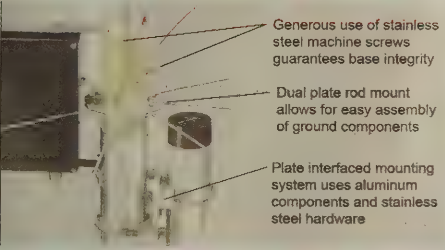
R8, $539.95. Like R9, but less 75/80 Meters.

New!
R-9
$639⁹⁵
6-80M

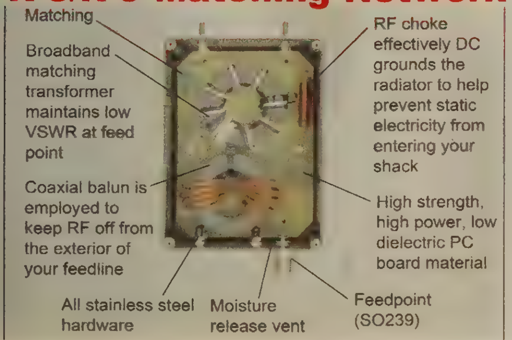
R-8TB, $79.95. Tilt-base lets you tilt your antenna up and down easily by yourself. Makes it easy to work on by yourself, no need to call your ham buddies over to help take it down and lift back up.

R-8GK, $59.95. 3-point guy kit for vertical antenna or antenna mast. Consists of guy brackets, thimbles, galvanized steel stakes, 150' Danscord rope. Everything needed to secure your antenna/mast safe in high winds.

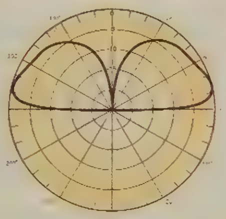
R-8/R-9 Rugged Design


Generous use of stainless steel machine screws guarantees base integrity
Dual plate rod mount allows for easy assembly of ground components
Plate interfaced mounting system uses aluminum components and stainless steel hardware

R-8/R-9 Matching Network


Matching
Broadband matching transformer maintains low VSWR at feed point
Coaxial balun is employed to keep RF off from the exterior of your feedline
All stainless steel hardware
Moisture release vent
Feedpoint (SO239)
High strength, high power, low dielectric PC board material
RF choke effectively DC grounds the radiator to help prevent static electricity from entering your shack

Typical elevation radiation pattern



The R-8 AND R9 provide 360 degree (omni) coverage on the horizon and a low radiation angle in the vertical plane for a better DX.

Specifications	R8	R9
Frequency Meters	6,10,12,15,17,20, 30,40	6,10,12,15,17,20, 30,40,80
Gain (dBi)	3	3
VSWR at resonance	1.3:1 typical	1.3:1 typical
VSWR 2:1 bandwidth, KHz	40M(150) 30M(>50) 20M(>350) 17M(>100) 15M(>450) 12M(>100) 10M(>1500) 6M(>1500)	80M(35) 40M(150) 30M(>50) 20M(>350) 17M(>100) 15M(>450) 12M(>100) 10M(>1500) 6M(>1500)
Power Watts PEP (FM)	1500 (500)	1500 (750)
Radiation angle, deg.	16	16
Horizontal rad., deg.	360	360
Height, ft. (m)	28.5 (8.7)	31.5 (10.7)
Mast size range, in(cm)	1.25-2" (3.18-5.1)	1.25-2" (3.18-5.1)
Wind load, ft2 (m2)	1.5 (.14)	1.5 (.14)
Wind surface area	2.5 sq. ft(0.23m)	4 sq. ft.(0.33m)
Weight, lb.(kg)	23 (10.5)	25 (12.5)
Shipping Dimensions	3.75x5.25x84.5"	3.75x5.25x84.5"

MA-5VA Five-Band Restricted-Space Vertical Antenna

The MA-5VA delivers superb HF multi-band performance while maintaining a neighbor-friendly low profile. Perfect for roof-mounts, patios, small backyards, condos, and motor homes, this 6.5-pound bantam-weight installs quickly without the "heavy lifting" required of larger antennas. Whether you install it permanently or take it down between operating sessions, you'll appreciate special features like the MA-5VA's gust-absorbing fiberglass base, resin-sealed resonator coils, aluminum mast blocks, and all-stainless hardware. Best of all, the MA-5VA is solidly engineered-its "no-radial" OCFD design delivers low SWR and high performance without using exotic matching networks or tuners. Simply connect a radio and you're ready to work the world! The MA-5VA is the perfect restricted-space DX solution for 20, 17, 15, 12, and 10 meters!

- **Light-weight rugged construction**
- **Rapid breakdown for storage or transport**
- **No exotic matching networks or tuners**
- **Advanced "no radial" OCFD design**

MA5V6M, $49.95. Six Meter Add-on Kit for MA5VA.

Specifications:	MA5VA	MA6VA
Frequency meters	10, 12, 15, 17, 20	6,10, 12, 15, 17, 20
Gain (dBi)	1-2	1-2
VSWR at resonance	1.2:1 All bands	1.2:1 All bands
Wind surface area	.82 ft^2 (.076 m^2)	.82 ft^2 (.076 m^2)
Wind Survival, mph	>80	>80
Power Watts PEP. (FM)	250 W (100W)	250 W (100W)
Height, ft (m)	14.7 (4.48)	14.7 (4.48)
Weight, lb (kg)	6.5 (2.95)	6.9 (3.13)
Shipping Dimensions	3"x 3"x 80"-1/2"	3"x 3"x 80"-1/2"

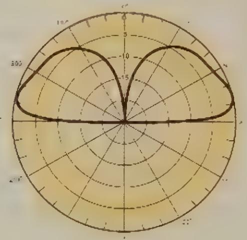
MA-5VA
$299.95

MA-6VA Six-Band Restricted-Space Vertical Antenna

Made for today's expanded-coverage radios, Cushcraft's MA-6AV provides the same great versatility and performance of the MA5VA- with the addition of 6 Meters. Enjoy congestion-free FM-repeater operation and explore the world of exotic seasonal band openings on 50 MHz CW and SSB. It's a great way to add amateur radio's "magic band" to your operating repertoire!

- **Neighbor-friendly low profile**
- **Rugged light-weight construction**
- **Air-baggage transportable (longest tube is 54")**
- **Robust mounting hardware included**
- **New bandwidth enhancing 8-rod counterpoise**
- **New low loss balun**

Typical elevation radiation pattern



MA-6VA
$339.95

Cushcraft Compact HF Multi-Band Beam 10-20 Meters

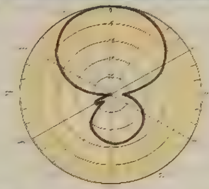
The MA-5B, Compact HF Multi-Band Beam

MA-5B
$\$499^{95}$

Small Footprint -- Big Signal

MA-5B, Cushcraft's multiband HF antenna provides 5-Band operation in a package small enough to mount to a tripod. The MA-5B is a design that does not sacrifice ruggedness, performance and power handling for size and ease of installation.

Specifications:			MA5B		
Frequency,Bands	10	12	15	17	20
Elements per Band	2	1	2	1	2
Gain, dBi	5.3	2	4.8	2	3.6
Front to Back Ratio, dB	10	0	12	0	22
Side Lobe Atten. dB	25	20	25	20	25
VSWR 2:1 Bandwidth. KHz	655	>10	225	>100	90
Longest Element, in (cm)	17.1′(52m)	17.1′(52m)	17.1′(52m)	17.1′(52m)	17.1′(52m)
Turning Radius, ft (m)	8.8′(2.7m)	8.8′(2.7m)	8.8′(2.7m)	8.8′(2.7m))	8.8′(2.7m)
Boom Length, ft (m)	7.3′(2.2)	7.3′(2.2)	7.3′(2.2)	7.3′(2.2))	7.3′(2.2)
Boom Diameter, ft (m)	1.5″(3.8cm)	1.5″(3.8cm	1.5″(3.8cm	1.5″(3.8cm	1.5″(3.8cm
Max. Wind Surface Area	3.22ft ^{2} (3m ^{2})	3.22ft^2 (3m ^{2})	3.22ft^2 (3m ^{2})	3.22ft ^{2} (3m ^{2})	3.22ft ^{2} (3m ^{2})
Max. Power Watts PEP (FM)	1200W (400W)	1200W (400W)	1200W (400W)	1200W (400W)	1200W (400W)
Weight, lb (kg)	26.5 (12)	26.5 (12)	26.5 (12	26.5 (12)	26.5 (12)

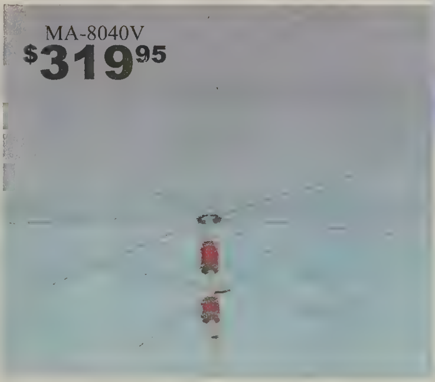


High Front to Back Ratio on 10/15/20 M

Cushcraft Low Frequency Verticals 160 and 80/40 Meters

MA-8040V 3.5-7.3 MHz Vertical Antenna

MA-8040V is a compact self-supporting HF vertical that delivers excellent DX-hunting performance on 80 and 40 Meters. Only 27 feet tall and weighing in at less than nine pounds, it is small and light enough for one person to handle easily without assistance. Once installed, the MA-8040V virtually disappears against a backdrop of trees and foliage. Parallel resonators use a combination of inductive and capacitive top loading to deliver automatic band switching, high efficiency, and rock-bottom SWR on both bands. Designed to handle maximum legal power and built to last year after year, it's the perfect DX solution when the sunspots silence the higher bands. Radial kit included.



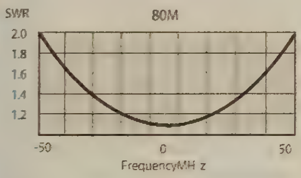
MA-8040V
$\$319^{95}$

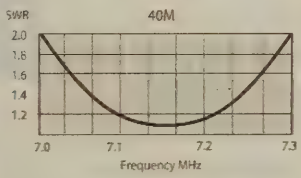
MA-160V 160-Meter Vertical Monopole Antenna

MA-160V is a compact efficient vertical especially designed for working top-band DX from an average-size house lot. A low launch angle and deep overhead null combine to pull in distant stations while rejecting local QRM. The MA-160V features a heavy-duty high-Q copper loading coil plus a wide 100-inch diameter stainless capacitive hat for high efficiency, resiliency and 1500-Watt power handling. An adjustable stinger provides coverage on any 40-kHz segment across the 1.8 2.0 MHz band. Weighing only 12-pounds, the MA-160V installs easily and blends in with backyard trees and vegetation. Each antenna comes with a 400-foot spool of ground-radial wire plus a Danscord™ insulated guying kit.

MA-160V
$\$299^{95}$

Specifications:	MA8040V	MA160V
Frequency MHz (MA8040V Tunable)	3.5-7.0 (80M) 7.0-7.3 (40M)	1.8-2.0
Gain, dBi [radial / dependant]	0 (80M), 2 (40M)	0
Minimum VSWR	1.1:1	1.1:1
Bandwidth (2:1 SWR)	100 KHz (80M) 300 KHz (40M)	40 KHz
Polarization	Linear Vertical	Linear Vertical
Power Handling PEP	1500 W	1500 W
Vertical Height (m)	23′-27′ (7-8.2)	30′-36′(12-14)
Weight (antenna only) lbs.(kg)	9.0 (4.1)	12 (5.4)
Mount Style	Mast	Mast
Ground Radials	8 Recomended	8 Recomended





Cushcraft HF Yagis and Log Periodics

X-7 BIG THUNDER TRIBANDER YAGI

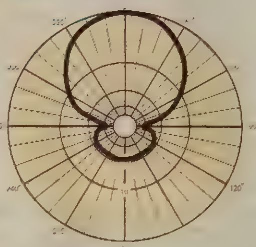
The X-7 Triband Yagi is geared to set new standards in both radiating performance and mechanical reliability. The product development team has employed the latest computer modeling technology to achieve a superior electrical design as well as elegant new mechanical hardware and assembly techniques. Each mechanical component was designed to 100+ MPH wind survival with a 1.25 safety factor. Traps were eliminated from the high current driven elements and reflectors using the new 4L Log Cell design, which yields virtual monoband performance and maximum power handling capability. Traps are employed only in the lower current directors for increased gain and sharper pattern. The result is a truly high performance antenna which will easily handle the legal limit.

- **New High Efficiency Computer Optimized Design for Maximum Gain and Ultra Clean Radiating Pattern**
- **100+ MPH Construction for Best Reliability and Long Life**
- **NEW 4L Log Cell Driven Elements for better VSWR Bandwidth**
- **Trapless Driven Elements and Reflectors for Reliable Power Handling**

X-7
$109995

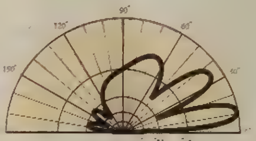
Specifications:	X-740	X-7	ALS-2010
Frequency Coverage	40 Meters	10, 15, 20 (Meters)	13.5-32 MHz
Number of Elements	1	7	8
Gain, dBi	2	12.5 (20m) @14° 13.0 (15m) @12° 12.9 (10m) @12°	6.4
Front to Back Ratio, dB	30	20	15-20
SWR 2:1 Bandwidth	100 KHz	600 KHz (20m) 750 KHz (15m) 1700 KHz (10m)	18.5 MHz
Longest Element, in (cm)	41 (12.5)	37.2′ (11.33)	38 (11.58)
Turning Radius, ft (m)	20.0′ (6.09)	20.0′ (6.09)	19.25′ (5.86)
Boom Length, ft (m)	18′ (5.48)	18′ (5.48)	18′ (5.48)
Wind Load ft ^{2} (m ^{2})	9.9 (.92)	7.9 (.73)	10.1 (.93)
Max. Power Watts PEP	1500W	1500W	1500W
Weight, lb (kg)	80 (36.3)	60 (27.2)	55 (25.5)

X7



Azimuth

Typical radiation patterns.
Height: One wavelength.
Frequency: 20 M



40-Meter Add-On Kit for X-7 Antenna

X-740
$36995

Add this X-740 kit to your X-7 antenna to get 40-Meter coverage. Step-by-step instructions, quick and easy modification for more band coverage.

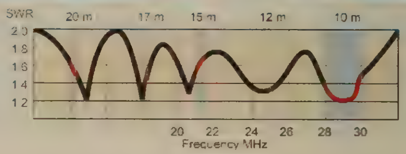
LOG PERIODIC

Skylog ASL-2010, 13 - 32 MHz

The ASL-2010 log periodic antenna is the most cost effective, high gain, five band antenna solution on the market today. Skylog offers continuous operation from 13.5 to 32 MHz. Antenna gain and beamwidth are constant for uniform coverage from 10 through 20 meters. The ASL-2010 is rated for continuous duty at full legal power. Skylog is designed for maximum gain on a manageable 18 foot boom with only 10.1 square feet of wind surface area. All stainless steel hardware and rugged element design are only some of the many features that provide years of superior antenna performance. Skylog ASL-2010 is the smart choice for multiband HF operation.

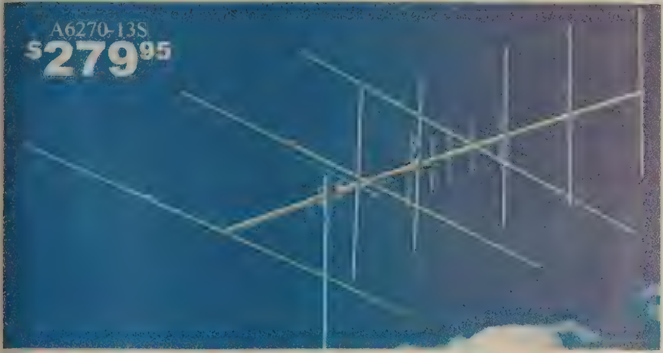
- **Continuous five band coverage 13.5-32 MHz**
- **Constant over entire frequency range**
- **6.4 dBi gain, 65 degree beamwidth**
- **18 foot boom and 19.5 foot turning radius**
- **High efficiency design, antenna stays cool and VSWR steady**

ASL-2010
$99995



Cushcraft VHF/UHF Yagis

6-2 Meters, 440 MHz



A6270-13S 6 Meter / 2 Meter / 70 CM

Cushcraft's multiband directional yagi is designed to provide hobbyists who have limited tower or mast space with directional antenna performance on three of the most popular bands. The A6270-13S combines 6 meters, 2 meters and 70 centimeters on one boom. The 2m and 70cm interlaced Yagis are designed to share a common feed line. An indepedent feed line drives the 6m portion.

- **Outstanding performance thanks to Cushcraft's unmatched multiband design technology and experience.**
- **Rugged stainless steel mounting hardware is easy to install and maintain.**

Specifications:	A6270-13S		
Frequency MHz	50-54	144-148	430-450
Number of Elements	3	5	5
Gain, dBi	8	10	10
Front to Back Ratio dB	20	20	18
SWR 1.2:1 Typical 2:1 Bandwidth, MHz	>1	>4	>10
Longest Element, in (cm)	117 (300)	117 (300)	117 (300)
Turning Radius, ft (m)	6.16′ (1.87)	6.16′ (1.87)	6.16′ (1.87)
Boom Length, ft (m)	8.66 (2.66)	8.66 (2.66)	8.66 (2.66)
Wind Load ft^2 (m^2)	2.52 (0.23)	2.52 (0.23)	2.52 (0.23)
Max. Power Watts PEP	1000W	350W	350W
Weight, lb (kg)	9.5 (4.3)	9.5 (4.3)	9.5 (4.3)

Cushcraft HF Monobander

40 Meters

XM-240
$999.95

XM-240 Big Thunder Monobander

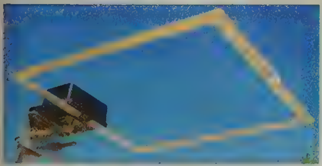
Cushcraft's XM-240 monobander utilizes rugged Big Thunder hardware that combined with high strength aluminum tubing affords the antenna outstanding wind survivability. Phillystran boom trusses are used in the XM-240 design for extra boom stability. The unique feed system is a 50 ohm direct feed VSWR is flat across the band. A high power 1:1 balun is included. The XM-240 is field-proven or reliability and performance. Excellent front-to-back ratio and gain makes the XM-240 the right choice for DX and for stacking as well.

Element Hardware

Boom-to-Mast

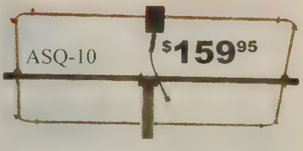
Specifications:	XM240
Frequency MHz	7.0 - 7.3
Number of Elements	2
Gain, dBi	6
Front to Back Ratio, dB	20-25
Side Lobe Atten. dB	>35
VSWR Typical Minimum	1.1:1
Longest Element, in (cm)	43 (13.1)
Turning Radius, ft (m)	24.3 (7.4)
Boom Length, ft (m)	22 (6.7)
Wind Surface Area sq ft (sq m)	5.5 (.51)
Wind Load @ 80 mph, lbs (kg	142 (64.4)
Max. Power Watts PEP	1500W
Weight, lb (kg):	55 (25)

Cushcraft 2, 6 and 10 Meter *"SQUALO"* Antennas



Cushcraft
ASQ-2
$119.95

Cushcraft's *SQUALO* is a full half-wave, horizontally polarized omni-directional antenna. Outstanding all-around performance is achieved through a 360 degree pattern with no deep nulls. The square shape allows *full* electrical length in compact dimensions. Direct 52 Ohm *Reddi-Match* feed provides ease of tuning and broad band coverage. *Squalo* is well suited for horizontally polarized mobile or fixed operation on SSB, CW, and legacy AM. The omni-directional pattern is great for DX beacons and spotting, and elements may be stacked for added gain. *Squalo* is completely universal for mounting anywhere. A horizontal mast support is included for mast or tower mounting. Cushcraft *Squalos* are ideal for net-control, monitoring or as a general coverage antenna. Minimum SWR. Handles 200 Watts PEP CW/SSB.



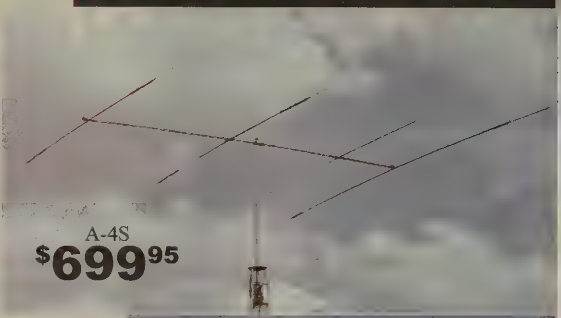
Mast-mounted ASQ-10 Squalo

Model #	Band	Size (LxW)	Price
ASQ-2	2-Meter	10x10 inches	$119.95
ASQ-6	6-Meter	30x30 inches	$139.95
ASQ-10	10-Meter	50x50 inches	$159.95
ASQ-15	15-Meter	65x65 inches	$189.95
ASQ-20	20-Meter	100x100 in.	$229.95

Cushcraft Multiband HF Yagis

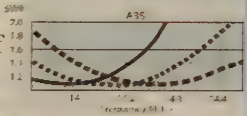
A-4S Four Element Beam - 10, 15 & 20 Meters

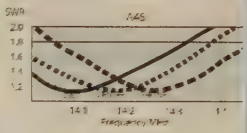
A-4S is the true, high performance tribander. Precisely tuned high-power traps, carefully selected element lengths, and proper spacing combine to make the A-4S the preferred antenna for your HF work! This is the premium antenna with all the features that you want. High gain, low SWR, and wide bandwidth keep the contacts coming in. All U-bolts, clamps and hardware are stainless steel. A-4S has pinned boom sections and formed aluminum brackets to keep elements straight in all conditions. Our solid construction keeps the A-4S on the tower! Add 40 meters with A744 kit.


A-4S
$699.95

A-3S Three Element Beam - 10, 15 & 20 Meters

A-3 World Ranger, our top selling tribander, has become the A-3S with all stainless steel hardware. It's a real power-house in a small space and lets you work the pile-ups with confidence. All you need is a lightweight tower and rotator to enjoy the benefits of the A-3S. It's a proven performer in DX-peditions and contests. Handles full power from your amp. Construction features include pinned boom sections, heavy duty element clamps with backing plates plus all stainless steel hardware. When space is a premium, but you want benefits of a full-size tribander, A-3S is right for you! Add 40M with A743 kit.

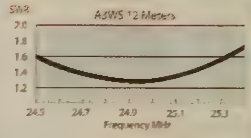


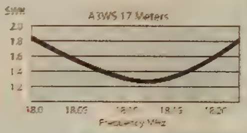


$599.95

A-3WS WARC Bands 3 Element, 12 & 17M

Enjoy the excitement of the WARC bands with this popular beam. A-3WS gives full performance on 12/17 meters. With the addition of our easy-to-use A-103 add on kit, it will also cover 30 meters. A-3WS needs only a lightweight tower and rotator or mount it above an existing tribander. Construction features include pinned boom sections, heavy duty element clamps with backing plates plus all stainless steel hardware.





A-3WS
$499.95

30/40M Add Kits for A-3S/A-4S/A-3WS

40 meters will come alive by adding one of these kits to the dipole of your A-3S or A-4S. Kits include high power traps with heavy wall fiberglass insulator and all hardware. A simple adjustment allows 30 meter operation. For our newest beam, the A3WS, we have a 30 meter add on kit, the A-103.

A-743, $199.95. 7 MHz/10 MHz kit for A-3S;
A-744, $199.95. 7 MHz/10 MHz kit for A-4S;
A-103, $199.95. 10 MHz kit for A-3WS.

Specifications:	A743/A744	A743/A744	A103
Band	7 MHz (40 m)	10 MHz (30m)	10 MHz (30m)
Adapter kit, ft (m)	33.19 min. 35.33 max. (10.12-10.77)	27.12 28.4 max. (8.27-8.66)	32.1 (9.8)
Windloading ft2 (m2)	.58 (.05)	.27 (.03)	.45 (.04)
Bandwidth, KHz	125	150	250
Power Rating, Watts	1500 PEP	1500 PEP	1500 PEP
Side Rejection, dB	20	20	20
Weight, lb (kg)	3.44 (1.56)	2.29 (1.04)	3.25 (1.47)

Specifications:	A4S	A3S	A3WS
Frequency MHz	28, 21, 14	28, 21, 14	24, 18
Number of Elements	4	3	3
Gain, dBi	8.9	8.0	8.0
Front to Back Ratio, dB	25	25	25
SWR 1.2:1 Typical, 2:1 Bandwith, MHz	>500	>500	>300
3 dB Beam Width, Deg E Plane	58	60	60
Longest Element, in (cm)	32 (9.75)	27.75 (8.45)	25.1 (7.66)
Turning Radius, ft (m)	18.4 (5.49)	15.5 (4.72)	14.4 (4.4)
Boom Length, ft (m)	18 (5.48)	14 (4.27)	14 (4.27)
Wind Load, ft² (m²)	1.80 (0.17)	4.36 (0.40)	4.1 (0.38)
Mast Size Range, in (cm)	1.25-2.00 (3.18-5.08)	1.25-2.00 (3.18-5.08)	1.25-2.00 (3.18-5.08)
Max. Power Watts PEP(FM)	1500W (1500)	1500W(1500)	1500W(1500)
Weight, lb (kg):	37 (16.8)	27 (12.9)	22.5 (10.2)

Rotatable Dipoles

The World Ranger Dipoles give bi-directional patterns and rotatable convenience. You can mount them high and away from the trees for better performance than a wire dipole. These single and multi-band dipoles feature high-performance traps, heavy wall tubing, and rugged hardware for years of enjoyment.

$369.95

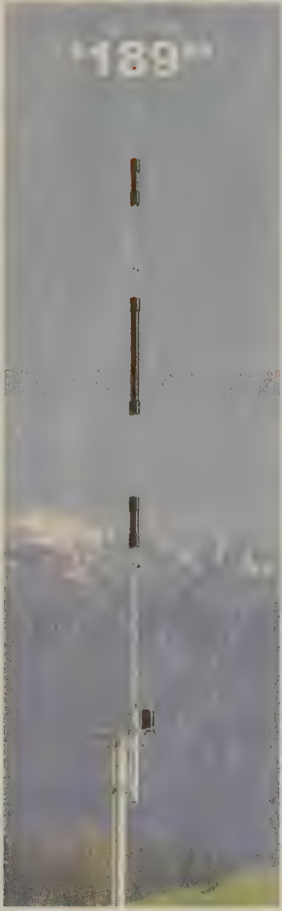
Specifications:	D40 $399.95	D4 $419.95	D3 $369.95	D3W $369.95
Frequency MHz	7	28,21,14,7	28,21,14	24,18,10
SWR 1.2:1 Typical. 2:1 Bandwith, KHz	40>125	>350	>500	>200
Power Rating Watts PEP (CW)	1500 (500)	1500 (500)	1500 (500)	1500 (500)
Length ft (m)	42.25 (12.88)	35.8 (10.92)	25.8 (7.86)	34.0 (10.37)
Mast Size, in(cm):	1.5-2 (3.8-5)	1.5-2 (3.8-5)	1.5-2 (3.8-5)	1.5-2 (3.8-5)
Wind Load, ft2 (m2)	1.3 (.12)	1.3 (.12)	.9 (.08)	.9 (.08)
Weight, lb (kg):	12 (5)	13 (6)	9 (4)	11 (5)

Cushcraft Dual Band Ringos & Yagis

2M/440 MHz

AR-270B 5.5/7.5 dB Dual Band Ringo

This model gives very high gain with a low angle of radiation and it is only 7.7 feet (2.35 m) high. The AR-270B is computer optimized with two 5/8 wavelength collinear elements on 2 meters and four 5/8 wavelength elements on 70 cm. It is broadbanded for minimum SWR on both bands. It is easy to assemble with three rugged aluminum tubing sections, a durable mast mount and factory sealed coils for best performance.



AR-270
$129.95

AR-270 3.0/ 5.5 dB Dual Band Ringo

The "Dual Wonder"AR-270 is only 3.75 feet(1.1 meters) high. It has great performance for its size, making it the most popular 2m/70 cm base antenna.

Specifications:	AR270		AR270B	
Frequency MHz	144-148	430-450	144-148	430-450
Gain, dBi	3.0	5.5	5.5	7.5
SWR 1.2:1 Typical 2:1 Bandwidth, MHz	>4	>15	>4	>15
Horizontal Radiation Pattern, Degrees	360	360	360	360
Height, ft, (m)	3.75 (1.13)		7.7 (2.3)	
Mast Size Range, in	1.25-2 (3.2-5.1)		1.25-2 (3.2-5.1)	
Radial Length, in (cm)	6.75 (17.1)		6.75 (17.1)	
Wind Load, ft2 (m2)	0.27 (0.03)		0.47 (0.044)	
Power, Watts FM	250		250	
Weight, lb (kg)	2 (0.9)		2.4 (1.09)	

A270-10S and A270-6S
10 and 7.8 dB Dual Band Yagis

Increase your range by selecting one of the new Cushcraft dual band Yagis on 2 meters and 70 cm. You can point the antenna at stations while you are in QSO with them. This will direct more of your output power when transmitting at the same time reducing interference and increasing signal strength when receiving. These antennas are perfect for packet applications. Assembly is a snap with our fully illustrated assembly manuals.

A270-10S
$169.95

Specifications:	A270-10S		A270-6S	
Frequency	VHF	UHF	VHF	UHF
Number of Elements	5		3	
Forward Gain, dBi	10		7.8	
Front to Back Ratio, dB	20	18	20	18
SWR 1.2:1 Typical 2:1 Bandwidth, MHz	^{3}4	^{3}10	^{3}4	^{3}20
Power Rating, Watts PEP:	350		350	
3dB Beamwidth, Degrees				
E Plane	52		66	
H Plane:	60		108	
Longest Element, in (cm)	40.3 (102.4)		41 (104.1)	
Turning Radius, ft (m)	6 (1.8)		2.8 (.85)	
Boom Length, ft (m)	6.17 (1.9)		2.8 (.85)	
Mast Size Range, in (cm)	1.25-2 (3.2-5.1)		1.25-2 (3.2-5.1)	
Wind Load, ft2 (m2)	.725 (.07)		.3 (.02)	
Weight, lb (kg):	1.8 (.81)		1.7 (.8)	

A270-6S
$129.95

Ringo Ranger II, Ringo Ranger, Ringo

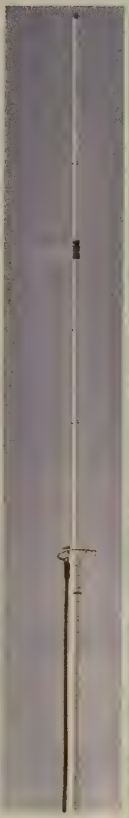
Ringo Ranger II

The Ringo Ranger II has more gain, less windload, and more mechanical integrity than other two meter antennas. You'll quickly appreciate the benefits of this amazing antenna! Based on the original W1BX Ringo, the Ringo Ranger II is the latest design featuring three 5/8 wave radiating elements and an adjustable 1/8 wave phasing stub. The result is a very low angle of radiation over your coverage area. The Ringo Ranger II has built-in lightning protection, UV-stabilized insulators, heavy wall tubing, improved decoupling radials to eliminate feedline radiation, and all-weather performance.

ARX-450B
$99⁹⁵

ARX-220B
$114.95

ARX-2
$79.95

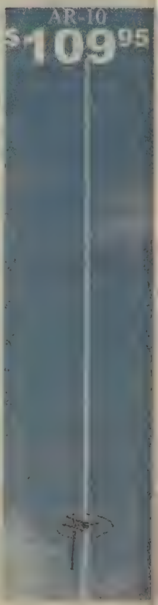


ARX-2B
$109.95

Specifications:	ARX-2	ARX-2B	ARX-220B	ARX-450B
Frequency MHz	135-160	135-160	222-225	435-450
SWR 1.2:1 Typical 2:1 Bandwidth, MHz	>6	>3	>5	>5
Gain, dBi	5.5	7.0	7.0	7.0
Power Rating,Watt FM	1000	1000	500	500
Radiation Angle, Deg.	16	7	7	7
Horizontal Radiation Pattern, Degrees	360	360	360	360
Radiator Base Dia, in (cm)	5 (12.7)	.75 (1.9)	.75 (1.9)	.50 (1.2)
Height, ft, (m)	12.5 (3.8)	14 (4.3)	9.3 (2.8)	4.9 (1.5)
Mast Size Range, in (cm):	1-1.25 (2.54-3.2)	1.0-1.25 (2.54-3.1)	1.0-1.25 (2.54-3.1)	.75-.88 (1.9-2.22)
Wind Load ft ^{2} (m ^{2})	.33 (.03)	0.5 (0.05)	0.3 (0.03)	.2 (.02)
Radial Length, in (cm)	20.5 (52.1	20.5 (52.1)	13.1 (33.7)	6.75 (17.1)
Weight, lb (kg)	4 (1.8)	6 (2.7)	5 (2.3)	1 (.45)

Ringo

These are the original W1BX F M Ringos. If you want a combination of compact size, wide bandwidth, a low radiation angle, these economical antennas are just for you. Since radials are not needed, you can even use our Ringos indoors. Our Ringos are 1/2 wave and include built-in lightning protection. Put up one of these easily installed antennas and start enjoying FM!

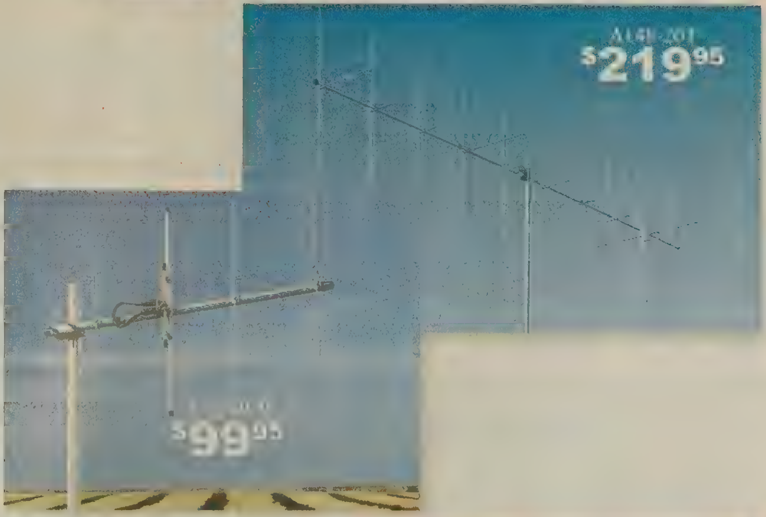


Specifications:	AR-2	AR-6	AR-10	AR-450
Frequency MHz	135-160	50-54	28-29.7	440-460
Gain, dBi	3	3	3	3
Radiation Angle, Deg.	16	16	16	16
Horizontal Radiation Pattern, Degrees:	360	360	360	360
SWR 1.2:1 Typical. 2:1 Bandwith, MHz	10	2	>1.5	20
Ring Diameter, in (cm)	5 (12.7)	13 (33)	13 (33)	3.5 (8.9)
Radiator Base Dia, in(cm):	.75 (1.9)	1 (2.5)	1 (2.5)	.5 (1.3)
Height, ft, (m):	3.9 (1.2)	10.1 (3.1)	17.6 (5.36)	1.4 (.43
Mast Size Range, in (cm)	1-1.25	1-1.25	1-1.25)	.75-.88
Wind Load, ft ^{2} (m ^{2})	.21 (.02))	.37 (.03)	1.68 (.16)	.1 (.01)
Max. Power Watts PEP	1000W	1000W	1000W	500W
Weight, lb (kg):	1.5 (.68)	2.5 (1.1)	4 (1.8)	1 (.45)

Cushcraft VHF/UHF Yagis 2 Meters, 220/440 MHz

A148-20T
2 Meter Hi-Lo Cross Yagi

Here's the antenna that solves multi-mode problems! Ten vertically polarized and ten horizontally polarized elements provide 11.1 dBi gain covering 144-148 MHz. The horizontal elements handle your CW and SSB needs, while the vertical elements cover FM. Hardware is stainless steel. Separate coax feeds allow polarization changes.



A224WB
220 MHz Widebands

This 222 MHz 4 element beam is perfect for Packet, FM repeaters, or sideband/CW. It can be mounted for vertical or horizontal polarization.

Specifications:	A224WB	A14820T
Frequency MHz	222-225	144-148
Number of Elements	4	10/10
Forward Gain, dBi	10.2	13
Front to Back Ratio, dB	20	24
SWR 1.2:1 Typical 2:1 Bandwidth, MHz	>5	>4
Power Rating, Watts PEP (FM)	1500 (750)	1000 (500)
3dB Beamwidth, Degrees E Plane H Plane	60 88	45 50
Side Lobe Attenuation, dB E Plane	40	40
Boom Length, ft (m)	3 (.91)	11 (3.4)
Electrical Wavelength	0.5	1.6
Longest Element, In (cm)	26.7 (68)	40.6 (103)
Turning Radius, ft (m)	3 (.91)	7.5 (2.3)
Mast Size Range, in (cm)	1.25-2 (3.2-5.1)	1.25-2 (3.2-5.1)
Wind Load, ft2 (m2)	.23 (.021)	0.39(0.11)
Weight, lb (kg)	1.7 (.77)	7 (3.15)

A449-6S/A449-11S
440 MHz Beams

Use one of these 440 MHz beams for your FM/Packet needs. Both work great for vertical or horizontal polarization.

A449-6S
$\$79^{95}$

A449-11S
$\$119^{95}$

A719B
$\$249^{95}$

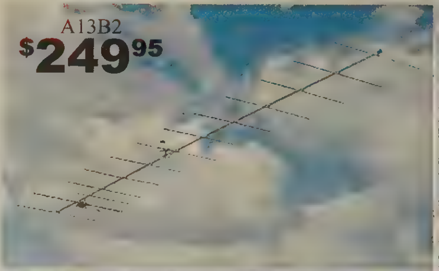
A719B
FM, CW and SSB 15.5 dBi

Looking for an antenna to enhance performance on all modes of the 70 CM band? The 13.5 foot long 719B is the right choice. Mount it vertical for FM or horizontal for CW and Sideband. The A-719B joins the 2 meter A-13B2 as a classic for improved performance.

Specifications:	A719B $^{\$}249^{95}$	A430-11S $^{\$}119^{95}$	A449-6S $^{\$}79^{95}$	A449-11S $^{\$}119^{95}$
Frequency MHz	430-450	430-440	440-450	440-450
Number of Elements	19	11	6	11
Forward Gain, dBi	15.5	13.2	10.5	13.2
Front to Back Ratio, dB	25	20	18	20
SWR 1.2:1 Typical 2:1 Bandwidth, MHz	20	>10	>10	>10
Power Rating, Watts PEP	2000	350	350	350
3dB Beamwidth, Degrees E Plane H Plane	24 19	48	60	48
Side Lobe Atten.,dB,E Plane	60	40	30	40
Boom Length, ft (m)	13.5 (4.1)	4.6 (1.39)	2.9 (0.89)	4.4 (1.35)
Connector Type	N	UHF	UHF	UHF
Longest Element, in (cm)	13.75 (34.9)	14 (35)	13 (33)	13 (33)
Turning Radius, ft (m)	7.25 (2.2)	2.8 (.85)	2.9 (.89)	2.8 (.85)
Mast Size Range, in (cm)	1.25-2 (3.2-5.1)	1.25-1.5 1.25-1.5	1.25-2.0 (3.2-5.1)	1.25-1.5 1.25-1.5
Wind Load, ft2 (m2)	1.2 (.11)	0.42 (0.04)	0.30 (0.03)	0.39 (0.04)
Weight, lb (kg)	5.6 (2.55)	4 (1.8)	3 (1.4)	4 (1.8)

Cushcraft Boomer Sideband VHF/UHF Yagis

A13B2 -13 Element Wideband Boomer



The A13B2 is as versatile as the A-17B2 is specialized. A13B2 will be your choice for high performance across the entire 2 meter band. New and experienced hams will enjoy 15.8 dBi gain on FM, packet, CW, or sideband across the 4 MHz operating range. The A13B2 is easily mounted vertically or horizontally for maximum performance on your favorite mode. Its optimum boom length makes it a popular antenna that fits just about anywhere. The new UltraMatch balanced feed on the A13B2 provides a 50 Ohm match via a standard SO-239 UHF female connector. Model A13B2N has N connector.

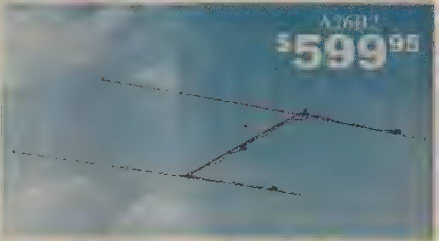
A17B2 - 17 Element CW/SSB Boomer

A17B2
$369 95

The serious two meter operator who is interested in EME, aurora, scatter, SSB, CW, tropo etc, will choose the A17B2. It has 17 elements on a 4.5 wavelength boom. Our computer-aided design supported by precise test range data and the latest manufacturing technology gives you a cleaner pattern and 18 dBi gain in this long boom design. Significant enhancement is provided by the new UltraMatch balanced feed system with N-connector.

The UltraMatch is a modified T-match system that provides a balanced current distribution on your Boomer. It uses UltraLink *Teflon*^{R} dielectric cable allowing for low loss high power applications. UltraMatch is completely enclosed for weather proofing. UltraMatch features an N-connector on the A17B2 and UHF SO239 on the A13B2. When all-weather performance is important, you will choose the new UltraMatched Boomers every time.

A26B2 - 26 Element Wideband Boomer



This antenna offers the highest gain of any 2 meter FM antenna in the world. The A26B2 includes 2 complete A-13B2 antennas, stacking boom and phasing harnesses.

A124WB - 4 Element Wideband Boomer

A124WB
$109 95

This is the right choice for packet systems and other applications requiring a dedicated directional antenna.

A148-10S & A148-3S 2M Yagis

A148-10S
$139 95

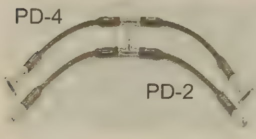
These antennas are the newest computer optimized models of our 2 meter Yagis. We have improved both the pattern and gain to give you better FM coverage. The A148-3S is the low priced quality leader for Packet, FM or even portable use. It is easily rear mounted. A148-10S is one of our best value designs with excellent gain and front-to-back ratio. Use it for long range FM or full band 2 meter operation.

Specifications:	A13B2	A17B2	A124WB	A26B2	A1483S	A14810S
Frequency MHz	144-148	144-145	144-148	144-148	144-148	144-148
Elements per Band	13	17	4	26	3	10
Gain, dBi	15.8	18.0	10.2	17	7.8	13.2
Front to Back Ratio, dB	26	26	19	26	18	24
Side Lobe Atten. dB	>60	>60	40	>60		
SWR 1.2:1 Bandwidth MHz	>4	>2	4	>4	>5	³4
Longest Element, in (cm)	39.75 (101)	40.75 (103.5)	40.75 (104)	39.75 (101)	41 (104.1)	40.3 (102.4)
Turning Radius, ft (m)	8.9 (2.7)	17.25 (5.26)	4 (1.22)	10.4 (3.18)	2.8 (.8)	6 (1.8)
Boom Length, ft (m)	15 (4.57)	31 (9.45)	4 (1.22)	15 (4.57)	2.8 (.85)	12 (3.6)
Electrical Wavelength	2.2	4.5	.5	2.2		
Wind Load ft^2 (m^2)	1.8 (.17)	3.9 (.36)	.34 (.034)	4.84 (.45)	.27 (.02)	1.21 (.11)
Max. Power Watts PEP	1500W	1500W	1500W	1500W	1000W	1000W
Weight, lb (kg)	6.7 (.31)	15.75 (7.14)	3 (1.36)	21.5 (9.75)	1.5 (.7)	6 (2.7)

A148-3S
$69 95

Power Divider Harness for Boomers

Our power dividers make it a snap to stack Cushcraft Boomers. Just add equal lengths of 50-Ohm coax to each of the antenna feed points.



PD-2, $69.95. For two A13B2 beams.
PD-4, $89.95. For four A13B2 beams.
PD-2N, $79.95. For two A17B2 beams.
PD-4N, $99.95. For four A17B2 beams.

Stacking Kits for Cushcraft Boomers

Make stacking your Cushcraft Boomers easy. Choose the Boomer Stacking Kits for your installation. Each stacking kit includes: Stacking Aluminum boom, Power Dividers wire harness and mounting hardware.

Order P/N: A26B2-VPK, $169.95 for two A13B2 Boomers.
Order P/N: A26B2N-VPK, $189.95 for two A17B2 Boomers.
Order two kits for stacking 4 Boomers.

Cushcraft 6 and 10 Meter Yagis

6 Meter Yagis - SSB/CW/FMI

Computer-aided modeling and test range techniques were used by Cushcraft engineers to further optimize the performance of our popular 6 meter Yagis. This process means more gain and cleaner patterns with excellent front-to-back ratios. S-models have very broad bandwidth so they will not detune in bad weather. They feature stainless steel hardware for long trouble-free life. Enjoy the new popularity and exciting contacts on the 6 meter band with one of the S-series Laird Yagis. The A50-3S, A50-5S and A50-6S may be mounted vertically for FM use.

TEN-3 10 Meter Yagi

Looking for a lightweight, economical alternative to the 10 meter big boys? Choose the TEN-3. Although it's popular with novices and technicians, this antenna is for any ham who wants more gain with a good front to back ratio on 10 meters. This antenna has an 8 foot boom (2.4m) making it easy to install on a very simple mount with only a light rotator. The matching system is our proven Reddi-Match for 50 Ohm no balun feed and SO-238 connector. Make more positive contacts with the TEN-3.

Specifications:	A503S	A505S	A50-6S	TEN3
Frequency MHz	50-54	50-54	50-54	28-29.7
Number of Elements	3	5	6	3
Gain, dBi	8	10.5	11.6	8
Front to Back Ratio, dB	20	24	26	25
Side Lobe Atten. dB	25	25	25	25
SWR 1.2:1 Typical, 2:1 Bandwith, MHz	>1	>1	>1	>1.5
Longest Element, In (cm)	117 (300)	123 (312)	119 (302)	18 (5.49)
Turning Radius, ft (m)	6′ (1.8)	7.8′ (2.37)	11.5′ (3.5)	9.8′ (3.0)
Boom Length, ft (m)	6′ (1.8)	12′ (3.7)	20′ (6.1)	8′ (2.44)
Wind Load, ft^2 (m^2)	1.80 (0.17)	2.9 (0.273)	4.46 (.41)	2.0 (.20)
Max. Wind Surface Area	3.22ft^2 (3m^2)	3.22ft^2 (3m^2)	3.22ft^2 (3m^2)	3.22ft^2 (3m^2)
Max. Power Watts PEP	1000W	1000W	1000W	1500W
Weight, lb (kg):	7 (3.2)	11 (5.0)	18 (8.2)	9.9 (4.45)

Cushcraft Amateur Information

Cushcraft antennas are designed to survive 80 MPH winds unless otherwise noted. Stainless steel hardware and high-grade seamless 6063-T832 tubing are used in all antennas. Cushcraft antennas are distributed by many fine dealers worldwide. For dealers in the USA, Canada and other countries, please contact Cushcraft.

Sales: Cushcraft Amateur Antennas, 308 Industrial Park Road, Starkville, MS 39759 USA.

Phone: 662-323-9538. **Fax:** 662-323-5803.

Email: *cushcraft@mfjenterprises.com*

Warranty: Cushcraft antennas carry a one year limited warranty.

Information: Visit our website: *cushcraftamateur.com* for additional information. FREE download of Instruction manuals.

Service: Return product to: Cushcraft Antennas, 308 Industrial Park Road, Starkville, MS 39759 USA.

Replacement Parts: To purchase or obtain warranty replacement parts, contact the Cushcraft factory at above address and phone/fax numbers.

Genuine Hy-Gain Rotator Replacement Parts

Rotator Potentiometer

RPM-1
$^{\$}39^{95}$

This potentiometer fits Hy-gain T2X, HAM-II, III, IV, V, and CD45II Hy-gain rotators. Has silver plated contact point that makes for smooth traveling, longer lasting and more reliable contact between pot strip and wiper arm. **RPM-1, $39.95** 500 Ohms, for most Hy-gain rotators. **RPM-2, $39.95.** Same as RPM-1, 1000 Ohms for AR-40.

Silver plated Contact Point

5-Second Brake Delay Kit

RBD-5
$^{\$}29^{95}$

Allows automatic 5-seconds brake delay for your Hy-Gain rotator. This delay insures that the rotator is fully stopped before the brake is engaged. Avoid accidentally engaging the brake while the rotator is in motion. For use with HAM-II, HAM-III, HAM-IV, HAM-V, and T2X rotators. Easy to install inside the controller. Kit includes pre-assembled PCB & mounting hardware.

Motor Capacitors/Meters/Fuses

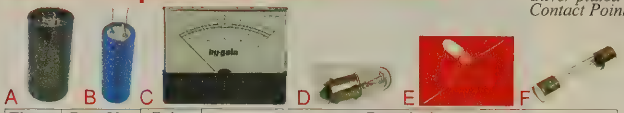


Figure	Part No.	Price	Description
A	5151501	$7.60	Motor start Capacitor for CD45, HAM-II, III, IV, V, T2X
B	5094300	$13.80	Motor start Capacitor for AR40 Rotator.
C	5147702	$130.00	Panel meter for CD45/HAM-IV, T2X with "North" scale. Uses external meter lamp.
C	400-2678	$32.50	Meter with internal lamp for "Plus" series CD45, HAM-IV, T2X, had "North" scale. *400-2678L* has LED lamp.
C	400-2678L	$36.40	
D	5089501	$1.43	Incandescent light bulbs, 28 V for controller with external meter lamp. Bayonet base.
E	355-2678	$1.95	Incandescent light bulbs, 28 V, for "Plus" controller meter with built-in lamp.
F	5056300	$1.44	1/8 Amp meter circuit fuse. For CD-45, HAMIV, T2X.
F	755-0103 (1034403)	$0.40	For HAM-III, HAM-IV, T2X, 3 Amp power fuse for CD45, Ham-II, III, IV, V, T2X

Terminal board & Pigtail cable conversion kits

Figure	Part No.	Price	Description
A	5146510	$12.95	8-screw terminal board. Fits CD-45II, HAM-II, HAM-III, HAM-IV and T-2X. Also replaces 4 screws terminal board for AR-40.
B	870852	$49.95	8-Pin AMP circular connector cable conversion kit. Convert 8-Pin terminal board to 8-Pin AMP water tight circular connectors cable assembly. Easy, detachable, Secured twist-and-lock. Fits CD-45II, HAM-II, HAM-III, HAM-IV and T-2X.

Rotator Mast Plates and U-Bolts

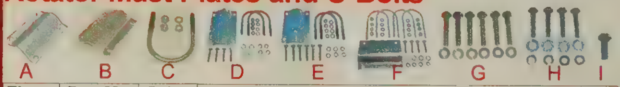


Figure	Part No.	Price	Description
A	5011500	$11.66	Mast Mounting plate for HAM-IV, 3/16" Zinc plated steel.
A	5137000	$14.96	Mast mounting plate for T2X, 3/16" Zinc plated steel.
B	5011800	$8.78	Mast mounting plate for CD45II/AR40. 3/16" Aluminum.
C	5141610	$9.66	HAM-IV (2 sets) U-bolt with nuts, lock washers, stainless.
C	5142310	$11.04	T2X (2 sets) U-bolt with nuts, lock washers, Stainless.
C	5042610	$11.80	CD45II & AR40 (4 sets) U-bolt with nuts, lock washers, Zinc plated steel.
D	5141510	$26.20	HAM-IV Rotator mounting kit, complete with mast plate, 2 sets U-bolts, nuts & bolts, 4 each tower mounting bolts.
E	5142210	$39.10	T2X Rotator mounting kit: mast plate, 2 sets U-bolts, nuts and bolts, 6 each tower mounting bolts.
F	5042510	$32.80	CD-45II, AR40 Rotator mounting kit: mast plate, 4 sets U-bolts, nuts and bolts, 4 each tower mounting bolts.
G	5142510	$^{\$}15^{43}/^{SET}$	T2X rotator to tower stainless mounting bolts/washers (6).
H	5141810	$^{\$}7^{65}/^{SET}$	HAM/CD45/AR40 rotor to tower mounting bolts/washers (4).
I	5105700	$^{\$}0.49/^{EA}$	Rotator bottom casting to top bell housing mounting bolts.

Motors/Ring Gears/Gears/Solenoid

Figure	Part No.	Price	Description
A	5037406	$59.95	Rotator Motor CD-45II and AR-40.
A	5137600	$69.95	Rotator Motor for HAM-IV and T2X.
B	5009900	$47.68	Brake Solenoid for HAM-IV and T2X.
C	5136101	$14.95	Ring Gear, Steel, for HAM-IV and T2X.
C	5031310	$9.95	Ring Gear, Aluminum cast for CD-45II and AR-40.
D	5008410	$12.50	Limit Switch Assembly for all Hy-Gain Rotators.
E	5010700-1	$16.40	Spur Gear, Stainless Steel, HAM-IV, T2X, Require 2 per rotator.
F	5011200-1	$33.40	Gear/Pinion Assembly, Stainless Steel, has short pinion, HAM-IV, T2X, Require 3 per rotator.
G	5011100-1	$30.44	Gear/Pinion Assembly, Stainless steel, has long pinion, HAM-IV, T2X. Require 1 per rotator.

Rotator Connectors

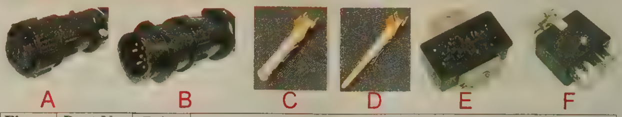


Figure	Part No.	Price	Description
A	870597	$19.95	8-Pin Amp Circular Female Connector Kit (connector shell and 8 female pin) for T2X.
B	870596	$14.78	8-Pin Amp Circular Male Connector Kit (connector male and 8 male pin) for T2X.
C	650082	$0.96	Amp Circular Connector Female Pin
D	650083	$0.78	Amp Circular Connector Male Pin
E	640076	$6.36	Rotator Controller Chassis Mount Female 8-Pin Jones.
F	640077	$6.72	Rotator Controller 8-Pin Male Jones Chassis Plug.

Rotator Cables & Mast Supports

Figure	Part No.	Price	Description
A	878-1608	$0.85 ft.	8 conductors PVC cable, 6 conductors 18 AWG plus 2 conductors 16 AWG. For Hy-gain rotator with 8 wire connections.
A	878-2004	$0.43 ft.	4 Conductors, 20 AWG, PVC cable for Hy-gain AR303/500 and Alfa rotators.
B	13-8075-T2 13-8100-T2 13-8125-T2 13-8150-T2	$147.85 (75') $181.95 (100') $216.05 (125') $250.15 (150')	Pre-assembled cable for T2X. Wired one end with Jones male connector and one end with AMP circular female. Water tight connectors with Twist-and-lock for secure connection. Other lengths not listed are available.
B	13-8006-T2	$39.95	Bench Test Cable for T2X. 6 ft. pre-wired assembly. 8 pin Jones male to 8 pin AMP female.
C	MSHD	$109.95	Heavy duty mast support for T2X, HAM-IV, HAM-V. Accepts $1^{7}/_{8}$-$2^{5}/_{8}$" OD. Centers on $2^{1}/_{2}$"
D	MSLD	$69.95	Light duty mast support for CD-45II, AR-40. Accepts $1^{7}/_{8}$-$2^{5}/_{8}$" OD. Centers on $2^{1}/_{2}$".

Ball Bearings/Shim/Brake Wedges/Low Temp Grease

Figure	Part No.	Price	Description
A	5033502	$5.50	Ball Bearings (50 pack)
B	5011300	$5.14	Ball Bearing Retainer, 49 slots. Require 2 pieces for HAM-IV, CD-45II and 3 pieces for T2X.
A+B	5131000	$9.95	Kit includes one bearing retainer and 50 ball bearings. Requires 2 kits for HAMs, CD45II & AR40 and 3 kits for T2X.
C	5039700	$4.87	Rotator Bottom Shim for HAMIV.
D	380828	$14.52	Brake Wedge for all HAM rotators. Stainless steel.
D	5151401	$15.60	Brake Wedge for T2X. Stainless steel.
E	5149710	$12.77	Low Temperature Rotator Lubricant, 1 ounce.

Replacement Rotators and Controllers

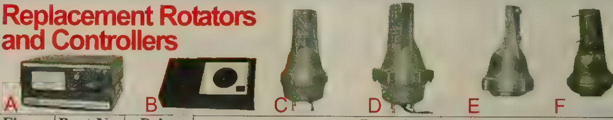


Figure	Part No.	Price	Description
A	HAM-IVC	$329.95	HAM-II, III, IV & T2X Controller. Supplied with 8-pin Jones male chassis mating connector. 110 VAC.
A	CD-45IIC	$259.95	CD-45II Controller. Supplied with 8-pin Jones male chassis mating connector. 110 VAC.
B	AR-40C	$169.95	AR-40 Controller, 110 VAC.
C	HAM-IVR	$499.95	HAM-II, III, IV Rotator with Amp male plug. Complete with mounting kits, (5141510).
D	T-2XR	$599.95	T2X Rotator with AMP circular male connector. Complete with mounting kit (5142210).
E	CD-45IIR	$249.95	CD-45II Rotator with 8-pin terminal board. Complete with mounting kit (5042510) Lower mast support not included.
F	AR-40R	$179.95	AR-40 Rotator. Complete with mounting kit (5042510). Lower mast support not included.

Hy-Gain can repair or rebuild your rotator.

Call Hy-Gain for quote & other replacement parts not listed.

1-662-323-9538 email: hygain@mfjenterprises.com

Hy-Gain(R) Multi-Band *PATRIOT* Vertical Antennas

New!

9-band vertical covers 80/40/30/20/17/15/12/10/6 Meters

• No radials • No traps • No ground • No tuning • Handles 1500 Watts

***hy-gain's** PATRIOT* HF vertical antennas are the best built, best performing and best priced multiband verticals on the market today. Make full use of your sunspot cycle with *PATRIOT's low angle* signal.

Instead of typical traps, hy-gain's resonators are placed in parallel not in series. End loading of the lower HF bands allows efficient operation with a manageable antenna height.

Introducing the *new* Hy-Gain ***PATRIOT-PLUS*** AV-680 with a fully tunable 3.5-4.0 MHz coverage!

With the AV-680, you get the same great traditional performance of the AV-640 on 6 through 40 Meters plus *top-to-bottom* capability on 80 and 75 Meters.

It's a great way to join new local nets and roundtables, explore the 75-Meter DX window, or add exciting digital frequencies to your operating repertoire.

Simply pick the band segment you wish to use, set the 80/75 Meter resonator, and you're in business.

- **No ground or radials needed** -- Effective counterpoise replaces radials, end fed with broadband matching unit.
- **Automatic bandswitching** -- Single coax cable feed, each band is individually tunable, wide VSWR bandwidth.
- **Sleek and low-profile** -- Low wind surface area, small area required for mounting, mounts easily on decks, roofs and patios.
- **Built-to-last** -- *Hy-gain's Patriot series antennas* boast a high wind survival due to its sleek, but sturdy frame. The matching unit is made from all *Teflon*R insulated wire.
- **Top Loading:** Parallel resonators -- best vertical-element efficiency
- **Full ground independence:** No unsightly wire add-on radials
- **Top-to-bottom 3.5 to 4.0 MHz coverage:** Pin-point fine-tuning accuracy for rock-bottom SWR on any frequency you choose.
- **Single coax feed . . .** and with 100% automatic band selection!
- **Low profile:** Most compact ground-independent antenna available!
- **Legal-limit 1500-Watt PEP:** Power handling on SSB and CW*

Adding 75/80 Meter coverage without compromising the *Patriot's classic performance*, ground independence, and tiny footprint was no small task. Yet, the AV-680 size, weight, and wind loading are nearly identical to the AV-640 with no unsightly radial extensions, traps, or top-heavy vertical structures to render it less attractive or unsafe.

Band selection remains fully automatic, all components handle maximum legal power, and you won't need a tuner with your solid-state rig.

The AV-680's *Expanded-Frequency Matchbox™* circuit ensures low SWR readings on every band, along with an upgraded balun design that concentrates all of your power in the antenna where it belongs!

If space is a premium at your QTH and appearance matters, let *Hy-Gain*(R) open the door to one of ham radio's *most attractive and popular bands* with the new AV-680. This is your best choice for unparalleled versatility and band coverage from 6-80 Meters!

AV-640, $449.95. Like AV-680 vertical antenna but just 25.5 feet tall and weighs only 17.5 lbs. It covers all bands 6 through 40 Meters with no traps, no coils, no radials yielding an uncompromised signal across all bands. AV-640 uses 1/4 wave stubs on 6, 10, 12 and 17 meters and efficient end loading coil and capacity hats on 15, 20, 30 and 40 meters.

AV-620, $349.95. Like Hy-Gain's famous AV-640 Vertical Antenna but just 22.5 feet tall, weighs only 10.5 lbs. Covers all bands 6 thru 20 Meters with no traps, no coils, no radials yielding an uncompromised signal across all bands.

Optional Guy Wire Kit, AGK-8, $59.95.

*hy-gain*R AV-680
9 Bands: 80, 40, 30, 20, 17, 15, 12, 10, 6 M
$549.95

New! with 80M

*hy-gain*R AV-620
6 Bands: 20, 17, 15, 12, 10, 6 Meters
$349.95

AV-620/640/680 Matching Network

*hy-gain*R AV-640
8 Bands: 40, 30, 20, 17, 15, 12, 10, 6 Meters
$449.95

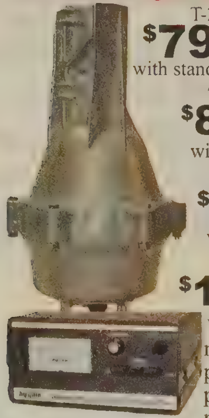
Model #	Bands	Max Power	Height	Weight	Wind Surv.
AV-620	6 Bands, 6-20	1500W	22.5 feet	10.5 lbs.	75 MPH
AV-640	8 Bands, 6-40	1500W	25.5 feet	17.5 lbs.	70 MPH
AV-680	9 Bands, 6-80	1500W*	26 feet	18.5 lbs.	65 MPH

*Intermittent duty CW.

hygain Antenna Rotators

T2X TAILTWISTER SERIES II

. . . for large medium antenna arrays up to 20 square foot wind load



T-2X
$\$799^{95}$
with standard controller

T-2XD2
$\$899^{95}$
with DCU-2

T-2XD3
$\$949^{95}$
with DCU-3

T-2XD
$\$1229^{95}$
with DCU-1

The Tailtwister is one of the most popular rotators in the Hygain product line. It has been the standard to what competing rotators try to match up to for well over years. Ask any ham who owns one.

The T2X Tailtwister Series II Rotator is for large medium antenna arrays up to 20 sq. ft. wind load. Wind load with mast adapter is 10 sq. ft. It has 1000 inches - pounds in turning power and 9000 inches- pounds in brake power. The effective movement in the tower is 3400 feet - pounds.

A new automatic 5-second brake delay insures that the rotator is fully stopped before the brake is engaged. No more accidentally engaging the brake while the rotator is in movement. T2X features a new low temperature grease which permits normal operation to -30° F. New alloy ring gear has tensile strength of 100,000 psi for max reliability.

The indicator potentiometer has been improved for greater reliability. A silver-plated relay contact point makes for smooth traveling and more reliable contact between the pot strip and wiper arm -- gives years longer life on these important, internal components.

New water-tight AMP detachable twist-and-lock connectors at the rotator base and an 8-pin plug at the control box make it easy to hook up. Rotator has a triple bearing race with 138 ball bearings for large load bearing strength. Electric locking steel wedge brake prevents wind induced antenna movement.

The control box features a North or South center of rotation scale on meter and low voltage control for safe operation.

Clamp plate and stainless steel mounting hardware is included. Use $2\,{}^{1}/_{16}$ inch maximum mast. Use 110 VAC. Order T-2XX for 220 VAC. Optional lower mast, **MSHD, $109.95.**

T2XD, $1229.95 with the *DCU-1 Pathfinder* digital control is available. The DCU-1 Pathfinder Controller features automatic operation of brake and rotator, computer control with RS-232 passthrough and has a 1 degree heading accuracy.

Compatible with many logging/contest programs and has six pre-sets for favorite beam headings. Has automatic 8-second brake delay and 360 degree choice for center of rotation. **Use** 110 VAC. Order T-2XDX for 220VAC operation.

Order T-2XD, $1229.95 with DCU-1 automatic controller.

Order T-2XD2, $899.95 with DCU-2.

Order T-2XD3, $949.95 with DCU-3.

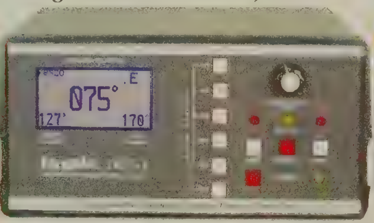
Descriptions below.

TAILTWISTER Rotator Specifications	
Wind load capacity (inside tower)	20 square feet
Wind Load (w/ mast adapter)	**10 square feet**
Turning Power	1000 in.-lbs.
Brake Power	**9000** in.-lbs.
Brake Construction	Electric Wedge
Bearing Assembly	**Triple race/138 ball brngs**
Mounting Hardware	Clamp plate/steel U-bolts
Control Cable Conductors	**8**
Shipping Weight	31 lbs.
Effective Moment (in tower)	**3400 ft.-lbs.**

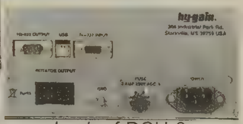
Hy-Gain Digital Automatic Controllers for HAM-IV and Tailtwister

DCU-3 Programmable Rotator Controller

6 Programmable memories; Point & shoot and manual control!



New! DCU-3
$\$449^{95}$

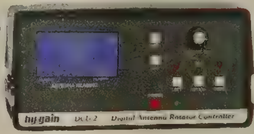


back of DCU-3

DCU-3 Digital Controllers feature six presets for beam headings, 1 degree accuracy and gives you fully automatic or manual control of your *HAM or Tailtwister Rotators*. Dial in your beam heading and press the rotate button or let *Ham Radio Deluxe* (or other) control your DCU-3. Your antenna automatically rotates to desired direction precisely and safely. First, DCU-3 makes sure your antenna is free and safely unlocked before turning begins and then turns off your motor before your antenna reaches its final destination. Your antenna gently coasts to a stop before the brake locks. Greatly reduces potentially damaging overshoot. Fine tuning and full manual control is effortless with *automated* Left and Right direction buttons - - no more worrying about manually releasing and relocking the brake. Brake automatically releases before fine tuning begins and relocks after fine tuning is completed. Bright blue LCD displays actual, dial-in beam, and computer controlled beam headings in one degree increments and your call sign. *AutoBrake Release* - no need to remember to release brake or release too soon - release time is automatic 0-8 seconds. *Coast* feature allows antenna to gently stop before brake locks. Adjustable coast delay (*0-10 degrees*) turns off motor before antenna reaches its final destination to reduce potentially damaging overshoot. *AutoJog* unlocks and frees antenna before turning -- great for older rotators with "sticky" brakes. It jogs rotator backwards slightly to ease brake pressure enough to release. Offset feature allows you to calibrate display to show actual beam heading. USB/RS-232 ports. Adjustable LCD sleep time. Field upgradeable. 8.5Wx4.3Hx9D". 110 VAC. **DCU-3X** for 220 VAC.

DCU-2 Digital Rotator Controller

DCU-2
$\$399^{95}$



DCU-2, $399.95. Similar to DCU-3, but does not have programmable memories. 110 VAC. Order DCU-2X for 220 VAC.

DCU-1 Automatic Digital Controller

Hy-Gain's *DCU-1 Pathfinder* automatic digital controller unit has a gas plasma display. The DCU-1 provides automatic operation of brake and rotor and calibration, and is computer-controlled with RS-232 pass-through and compatible with many logging and contest programs. Features 6 presets for beam headings, 1 degree accuracy, auto 8-second brake delay, 360 degree choice for center location, plus much more.

Order DCU-1X for 220 VAC operation.

DCU-1
$\$749^{95}$

Replace your *YAESU* Rotator Controller

New!

Hy-gain YRC-1 gives more features and a much more robust controller that is far less prone to lightning damage. YRC-1 costs less than repairing your original Yaesu controller! YRC-3 has all features of the YRC-1 plus it gives you 6 programmable memories!

YRC-1
$\$329^{95}$

YRC-3
$\$399^{95}$

Easy-to-use -- dial in your beam heading and tap *GOTO* button. *Exclusive* 180 degree *AutoReversal*™ for fast longpath operation.

YRC-1 has all features of the DCU-2. Bright blue LCD shows current, dialed-in, computer controlled beam headings and your call. USB port for computer control. Extra heavy-duty AC power supply.

Variable DC motor speed for minimizing damaging antenna overshoot and fast operation. Intuitive menu for calibrating, offsetting, or changing parameters. Field upgradeable firmware. Use with Yaesu G-800/1000/2800/G450/650. For AC or DC motors.

YRC-3 like YRC-1, but adds six programmable memories.

the first choice of hams worldwide!

HAM-IV . . . *The most popular rotator in the world!*

. . . for medium communication arrays up to 15 square feet wind load . . .

HAM-IV
$\$649^{95}$
with standard controller

HAM-V
$\$1099^{95}$
with DCU-1

HAM-VI
$\$749^{95}$
with DCU-2

HAM-VII
$\$799^{95}$
with DCU-3

HAM-IV is the most popular rotator in the world for obvious reasons. It's solidly constructed, has been time-tested and proven for over twenty years and is a *heckuva* buy at only $649.95!!!

HAM IV is for medium communications arrays up to 15 sq. feet wind load area (7.5 sq. ft. with mast adapter). It has 800 inches-lbs. turning power and 5000 inches-lbs. brake power.

Automatic 5-second brake delay insures that the rotator is fully stopped before the brake is engaged. No more accidentally engaging the brake while the rotator is in movement.

New Test/Calibrate function. *New* low temperature grease permits normal operation down to -30° F. *New* alloy ring gear gives extra strength to 100,000 PSI for maximum reliability.

New indicator potentiometer has been improved for greater reliability. Silver-plated relay contact point makes for smooth traveling and more reliable contact between pot strip and wiper arm -- gives years longer life span on these important, internal components.

Detachable 8 pin latching Cinch connectors make easy removal at rotator and 8 pin plug at controller. Dual 98 ball bearing race for load bearing strength and electric locking steel wedge brake prevents wind induced antenna movement. North or South center of rotation scale on meter, low voltage control, max mast size $2^{1}/_{16}$".110 VAC.

Optional lower mast support, **MSHD, $109.95**.

HAM-IV, $649.95. HAM-IV rotator with standard analog controller. Order HAM-IVX for 220 VAC operation.

HAM-V, $1099.95. Like HAM-IV rotator but with DCU-1 plasma display controller. Order HAM-VX for 220 VAC operation.

HAM-VI, $749.95. Like HAM-IV but has *DCU-2* automatic controller which has many of the same features of the DCU-3, but no programmable memories. Order HAM-VIX for 220 VAC.

HAM-VII, $799.95. Like HAM-IV, but has DCU-3 digital, programmable automatic controller with six programmable memories for beam headings, point and shoot and manual control. Order HAM-VIIX for 220 VAC operation.

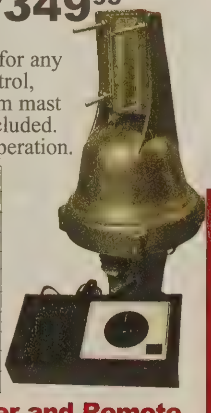
HAM IV and HAM V Rotator Specifications	
Wind Load capacity (inside tower)	15 square feet
Wind Load (w/mast adapter)	**7.5 square feet**
Turning Power	800 in.-lbs.
Brake Power	**5000 in.-lbs.**
Brake Construction	Electric Wedge
Bearing Assembly	**dual race/98 ball bearings**
Mounting Hardware	Clamp plate/steel U-bolts
Control Cable Conductors	**8**
Shipping Weight	26 lbs.
Effective Moment (in tower)	**2800 ft.-lbs.**

Mast Support

MSHD, $109.95. Heavy duty mast support for T2X, HAM-IV and HAM-V. Accepts $1^{7}/_{8}$ to $2^{5}/_{8}$ inch OD pipe. Centers on $2^{1}/_{2}$ inches.

AR-40 . . . for compact arrays up to 3.0 square feet

AR-40
$\$349^{95}$

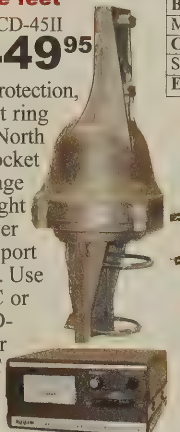


For compact antenna arrays and large FM/TV up to 3.0 square feet wind load area. Dual 12 ball bearing race. Automatic position sensor never needs resetting.
Fully automatic control -- just dial and touch for any desired location. Solid state, low voltage control, safe and silent operation. $2^{1}/_{16}$ inches maximum mast size. MSLD, light duty lower mast support included. Use 110 VAC. Order AR-40X for 220 VAC operation.

AR-40 Rotator Specifications	
Wind load capacity (inside tower)	3.0 square feet
Wind Load (w/ mast adapter)	**1.5 square feet**
Turning Power	350 in.-lbs.
Brake Power	**450 in.-lbs.**
Brake Construction	Disc Brake
Bearing Assembly	**Dual race/12 ball bearings**
Mounting Hardware	Clamp plate/steel bolts
Control Cable Conductors	**5**
Shipping Weight	14 lbs.
Effective Moment (in tower)	**300 ft.-lbs.**

CD-45II . . . for arrays up to 8.5 square feet

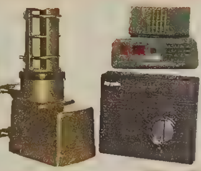
CD-45II
$\$449^{95}$



For antenna arrays up to 8.5 sq. feet mounted inside tower or 5 sq. ft. with mast adapter. Low temperature grease good to -30°F. *New* Test/ Calibrate function. Bell rotator design gives total weather protection, dual 58 ball bearing race gives proven support. Die-cast ring gear, stamped steel gear drive, trouble free gear train, North center scale, lighted directional indicator, 8-pin plug/socket on control unit, snap-action control switches, low voltage control, safe operation, max mast size $2^{1}/_{16}$". MSLD, light duty lower mast support included. Use 110 VAC or order CD-45IIX for 220 VAC operation.

CD-45II Rotator Specifications	
Wind load capacity (inside tower)	8.5 square feet
Wind Load (w/ mast adapter)	**5.0 square feet**
Turning Power	600 in.-lbs.
Brake Power	**800 in.-lbs.**
Brake Construction	Disc Brake
Bearing Assembly	**Dual race/48 ball brings**
Mounting Hardware	Clamp plate/steel U-bolts
Control Cable Conductors	**8**
Shipping Weight	22 lbs.
Effective Moment (in tower)	**1200 ft.-lbs.**

UHF/VHF/6M Rotator/Controller and Remote



AR-303/X
$\$99^{95}$

AR-500/X
$\$129^{95}$

For use of small VHF/UHF, 6M, TV, FM, other lightweight antennas. Rotator is built in a weather-proof one piece cast aluminum housing with precision metal gears, steel thrust bearings. Includes rotator, controller, clamps, hardware.

AR-500 remembers up to 12 directions even after a power outage! Use remote control or console. Displays location and relative position.

Order "X" for 220VAC operation.

New!
TB-105, $59.95. Optional AR-303/500 Thrustbearing.

HDR-300A . . . *for King-sized antenna arrays up to 25 square feet wind load*

The HDR-300A is for ***king-sized*** antenna arrays up to 25 square feet wind load area (inside tower). It has a 5000 inches - pounds turning power and a 7500 inches - pounds brake power.

Brake construction is a solenoid operated locking brake and the bearing assembly is bronze sleeve with rollers built to handle huge loads. Control cable connector with hardened stainless steel output shaft, North or South centered calibration.

Ferrite beads on potentiometer wires reduce RF susceptibility, longer output shaft keyway adds reliability.

Self-centering steel clamp and hardware included. Display is accurate to 1°. Machined steel output. Mounting hardware, stainless steel bolts included. Use 110 VAC. Weighs 61 lbs.

UPS shippable. Order HDR-300AX for 220 VAC operation.

HDR-300A
$\$1499^{95}$

HDR-300A Rotator Specifications	
Wind load capacity (inside tower)	25 square feet
Wind Load (w/ mast adapter)	**not applicable**
Turning Power	5000 in.-lbs.
Brake Power	**7500 in.-lbs.**
Brake Construction	solenoid operated locking
Bearing Assembly	**bronze sleeve w/rollers**
Mounting Hardware	stainless steel bolts
Control Cable Conductors	**7**
Shipping Weight	61 lbs.
Effective Moment (in tower)	**5000 ft.-lbs.**

hy-gain/AlfaSpid Azimuth & Elevation Rotators

Super heavy-duty Rotators . . . Super strong Double Worm Gear Drive, Self-Braking, Extremely Quiet Motors, One Degree Position Resolution, Automatic Digital Controller. Up to . . . 38 sq. ft. wind load . . . 8000 in./lbs. turning torque . . . 24,000 in./lbs. brake torque . . . 700 lbs. vertical load

RAK-1 (RAK)
$1099.95
Includes RAK-1CU controller

Plate adaptor, mouse not included

These *super heavy-duty* RAK Rotators are designed with a simple *double worm gear* drive. This results in a super-strong ultra-reliable rotator system with inherent self-braking. Each includes a precision automatic digital controller.

Turning is powerful, smooth, precise and extremely quiet. The inherent self-braking action of its double worm gear drive positively stops it every time -- *won't move!*

It's fast! A high-torque DC gear motor rotates your antenna 360 degrees in just 60 seconds with 24 Volts on the motor. The RAK Rotators operate from 12 to 24 Volts AC *or* DC. The higher the voltage the higher the torque and the faster the turning speed -- *unique RAK feature.*

RAK-1R, $779.95. RAK-1 Rotator only.

RAK-1 Specs	RAK-1 @ 12 V	RAK-1 @ 18 V	RAK-1 @ 24 V
Wind Load Area	Approx. 30 sq. feet	Approx. 30 sq. feet	Approx. 30 sq. feet
Turning Torque,in-lbs	1400 in-lbs.	1800 in-lbs.	3240 in-lbs.
Brake Torque, in-lbs.	14,000 in-lbs.	14,000 in-lbs.	14,000 in-lbs.
Brake Construction	Double Worm Gears	Double Worm Gears	Double Worm Gears
Vertical Load	550 lbs.	550 lbs.	550 lbs.
Rotation Speed/*360 deg*	120 seconds	90 seconds	60 seconds
Precision	1 degree	1 degree	1 degree
Rotation Range	720 degrees	720 degrees	720 degrees
Rotator Weight	16 lbs.	16 lbs.	16 lbs.
Position Sensor	Reed Switch	Reed Switch	Reed Switch
Mast size	2.0/2.6 in. Top/Bot.	2.0/2.6 in. Top/Bot.	2.0/2.6 in. Top/Bot.

RAK-2 (BIG RAK)
$1599.95
Includes RAK-1CU controller

Plate adaptor, mouse not included

It's simple to mount! Pipe mast mount on both ends allow coax cables to pass through the center of the rotator and prevents cable tangling and damage. Optional adaptor plate mounting, *See accessories section below.*

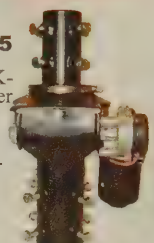
It's precise! The included RAK-1C controller has one degree resolution and a large 3/4 inch 4-digit *easy-to-read* soft green LED digital readout. Sealed reed switch sensor technology gives reliable all-weather operation and super tight tolerances with minimal play.

Tough & durable! Heavy-duty construction uses 3/16" thick-wall steel pipe, ultra-durable steel housing.

RAK-2R, $1295.95. RAK-2 Rotator only.

RAK-2 Specs	RAK-2 @ 12 V	RAK-2 @ 18 V	RAK-2 @ 24 V
Wind Load Area	Approx. 38 sq. ft.	Approx. 38 sq. ft.	Approx. 38 sq. ft.
Turning Torque,in-lbs	>5000 in-lbs.	>8000 in-lbs.	Contact *Hy-Gain*(R)
Brake Torque, in-lbs.	24,000 in-lbs.	24,000 in-lbs.	24,000 in-lbs.
Brake Construction	Double Worm Gears	Double Worm Gears	Double Worm Gears
Vertical Load	>700 lbs.	>700 lbs.	>700 lbs.
Rotation Speed/*360 deg*	120 seconds	90 seconds	60 seconds
Precision	1 or 0.5 degree	1 or 0.5 degree	1 or 0.5 degree
Rotation Range	720 degrees	720 degrees	720 degrees
Rotator Weight	24 lbs.	24 lbs.	24 lbs.
Position Sensor	Reed Switch	Reed Switch	Reed Switch
Mast size	2.6/2.6 in. Top/Bot.	2.6/2.6 in. Top/Bot.	2.6/2.6 in. Top/Bot.

Econo AlfaSpid Rotator


RAU-1
$799.95
Includes RAK-1CU controller

Our smallest rotator is a step up from the mainstream rotators and provides excellent support for direct round mast mounting. Incorporate elevation rotator to provide full EL/AZ capability. Ideal for light duty 3-4 element antennas, short boom 6-Meter beams and 2 Meter/70 cm beam antennas.

Technical specifications:

Angle of turn: 360 deg. +/-180 °

Time of tour: 60 sec.

Supply: 12V-18V DC

Weight: 6.5 kg

Input signal: pulses (one pulse per degree)

Vertical pressure: 120 kg

Maximum net torque: 180 Nm

Rotor and Control Box works great with such programs as ham radio deluxe.

RAU-1R, $479.95. RAU Rotator only.

Azimuth-Elevation Rotators

RAS-1
$2095.95

Includes RAS-2CU Controller.

Plate adapters not included.

RAS-2
$2695.95

Hy-gain offers RAS-1 and BIG RAS (RAS-2) super heavy-duty *Azimuth-Elevation Rotators*. Same heavy-duty design as RAKs and includes the RAS-2C Digital Controller.

RAS-2 has same specifications as RAS-1 below but with these super-specs. *Turning Power*: 5,000 in-lbs. torque@12V; 8000 in-lbs. torque@18V; *Brake Torque*: 24,000 in-lbs. at all voltages; *Vertical Load:* greater than 700 lbs; RAS-2 weighs 44 lbs.

RAS-1R, $1549.95 RAS-1 rotator. **RAS-2R, $2259.95.** RAS-2 rotator.

RAS-1 Specs	RAS-1 @ 12 V	RAS-1 @ 18 V	RAS-1 @ 24 V
Wind Load Area	Approx. 30 square feet	Approx. 30 square feet	Approx. 30 square feet
Turning Torque in-lbs	1400 in-lbs.	1800 in-lbs.	3240 in-lbs.
Brake Torque, in-lbs.	14,000 in-lbs.	14,000 in-lbs.	14,000 in-lbs.
Brake Construction	Double Worm Gears	Double Worm Gears	Double Worm Gears
Vertical Load	550 lbs.	550 lbs.	550 lbs.
Rotation Speed *(360 degrees)*	120 seconds	90 seconds	60 seconds
Precision, Rotator Weight	1 degree, 29 lbs.	1 degree, 29 lbs.	1 degree, 29 lbs.
Rotation Range (Azi/Elev.)	360/180 degrees	360 azi/180 degrees	360/180 degrees
Position Sensor	Reed Switch	Reed Switch	Reed Switch
Mast size Bottom/Elevation	2.6 bottom/2.0 elevation	2.6 bottom/2.0 elevation	2.6 bottom/2.0 elevation

Digital Rotator Controllers

RAK-1CU
$339.95

RAK-1 and RAK-2 are supplied with RAK-1CU or RAK-1CU RS-232/USB Auto or digital Controllers. ***Manual Mode:*** Left, right arrows, move rotator clockwise and counter clockwise.

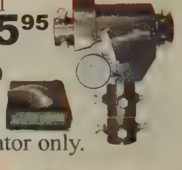
Semi-Auto Mode: Allows preset of desired beam locations.

Automatic Mode: RS-232 and USB interface has auto control. Works with most programs. Controller can be zeroed at any position to allow for installation inaccuracy or antenna mount slippage.

Optional Mouse, **AZ-1M, $49.95,** allows 6 presets. Use Left, Right and Stop.

RAK-1CU/RAS-2CU Specs	RAK-1C/1CU, $339.95	RAS-2C/2CU, $579.95
Computer Interface	1200 Baud 8N 1, USB	600 Baud, 8N 1, USB
Pre-sets with Mouse	6 User settable	N/A
Emulation	Spid, HY, OR, Yaesu	Spid, Yaesu
Limit Settings	2-AZ-CW & CCW	4 (2 AZ - 2 EL)
User-settable Calibration	N-S or any degree	AZ & EL, any degree
Precision	1 or 0.5 degree	1, 0.5, 0.25 degree
Rotation Range	720 degrees	360/180 degrees
Weight	2.75 lbs.	4.75 lbs.
Connections to Rotator	4 wire (2 sens, 2 motor)	4 wire (2 sens, 2 motor) EL 4 wire (2 sens, 2 motor) AZ

Elevation Rotator


REAL-1
$1195.95

Elevation Rotator has all specifications of the popular RAK-1 but is for moving antennas 180 degrees up or down. Package includes RAK-1CU controller.

REAL-1R, $869.95. REAL Rotator only.

Rotator Accessories

Model#	Cost	Description
AZ-1M,Z/EL	$49.95	Rotator Cntrlr Mouse only
RAK-1R	$799.95	RAK Rotator Only
RAK-2R	$1295.95	BIG RAK Rotator only
RAK-1CU	$339.95	RAK RS232/USB Control
RAS-1R	$1595.95	RAS Rotator only
RAS-2R	$2259.95	BIG RAS Rotator only
RAS-2CU	$579.95	RAS RS232/USB Control
RAU-1R	$479.95	RAU Rotator only
REAL-1R	$869.95	REAL Rotator only
FPA-4	$49.95	4" Pipe to Flat Plate Adptr
FPA-8	$59.95	8" Pipe to Flat Plate Adptr
PTP-18	$89.95	18" Pipe to Pipe Adaptor

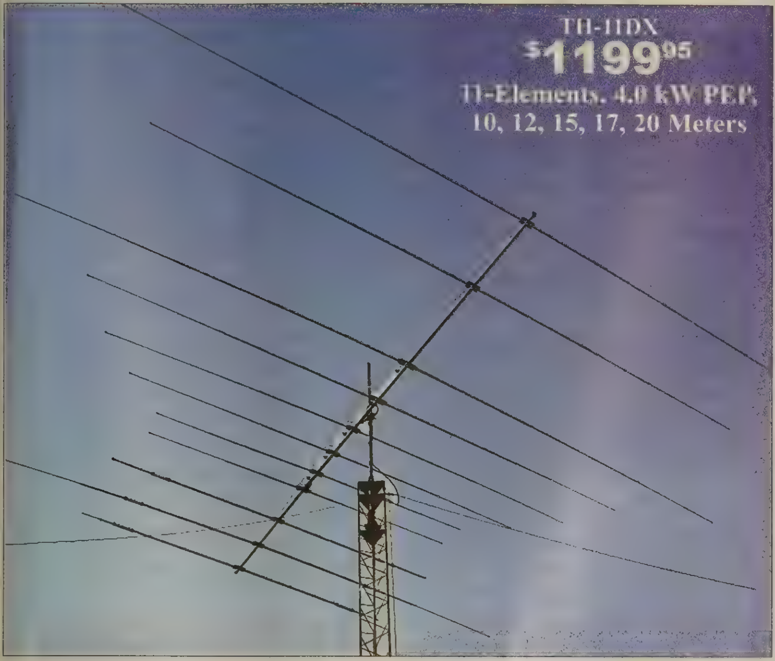
FPA-4
$49.95

FPA-8
$59.95

PTP-18
$89.95

hy-gain HF BEAMS...

. . . are stronger, lighter, have less wind surface and last years longer



TH-11DX, $1199.95. 11-element, 4.0 kW PEP, 10,12,15,17,20M

The choice of top DXers. With 11-elements, excellent gain and 5-bands, the super rugged TH-11DX is *the "Big Daddy" of all HF beams!* Handles 2000 Watts continuous, 4000 Watts PEP.

Every part is selected for durability and ruggedness for years of trouble-free service.

Features a low loss log-periodic driven array on all bands with monoband reflectors, BN-4000 high power balun, corrosion resistant wire boom support, hot dipped galvanized and stainless steel parts.

Stainless steel hardware and clamps are used on all electrical connections.

Compact 3-element 10, 15, 20 Meter Tri-Bander

For limited space . . . Installs anywhere . . . 14.75 ft turning radius . . . weighs 21 lbs . . . Rotate with CD-45II, HAM-IV

Fits on light tower, suitable guyed TV pole, or roof tri-pod.

TH-3JRS, $379.95.

Hy-Gain's *most popular* 3-element 10, 15, 20 Meter tri-bander fits on most lots!

Same top performance as the full power TH3MK4 in a compact 600 watt PEP design.

Excellent gain and F/B ratio let *you* compete with the "big guns".

Tooled manufacturing gives you *Hy-Gain* durability with 80 MPH wind survival.

TH-7DX, $899.95. 7-element, 1.5 kW PEP, 10,15,20 Meters

7-Elements gives you the *highest average gain* of any Hy-Gain tri-bander! Dual driven for broadband operation without compromising gain. SWR less than 2:1 on *all* bands. Combined monoband and trapped parasitic elements give you an excellent F/B ratio. *Hy-Gain's* diecast aluminum, rugged boom-to-mast clamp, heavy gauge element-to-boom brackets, BN-86 balun. For high power, use BN-4000.

TH-5MK2, $789.95. 5-element, 1.5 kW PEP, 10,15,20 Meters

The broadband *five element* TH5-MK2 gives you outstanding gain. Separate air dielectric *Hy-Q* traps let you adjust for maximum F/B ratio on each band. Has *Hy-Gain's* exclusive *BetaMATCH*™, stainless steel hardware and compression clamps and BN-86 balun.

TH-3MK4, $499.95. 3-element, 1.5 kW PEP, 10,15,20 Meters

The super popular TH-3MK4 gives you the *most gain for your money* in a full-power, full-size durable Hy-Gain tri-bander! Impressive average gain and whopping average front-to-back ratio. Handles 1.5 kW PEP. 95 MPH wind survival. Fits on average lot -- turning radius is just 15.3 feet. 4-piece boom is ideal for DXpeditions. Choose CD-45II or HAM-IV rotator. *Hy-Gain BetaMatch*™ for DC ground, full power *Hy-Q*™ traps, rugged boom-to-mast bracket and mounts on standard 2"O.D. mast. Stainless steel hardware. BN-86 balun recommended.

TH-2MK3, $389.95. 2-element, 1.5 kW PEP, 10,15,20 Meters

The 2-element TH-2MK3 is Hy-Gain's *most economical* full power (1.5kW PEP) full size tri-bander. Increase your effective radiated power and hear far better! Ruggedly constructed, top-performing, compact 6 foot boom, tight 14.3 foot turning radius. Installs almost anywhere. Rotate with CD-45II or HAM-IV. Use BN-86 balun.

EXP-14, $629.95. 4-element, 1.5 kW PEP, 10,15,20 Meters

Revolutionary 4-element compact tri-bander *can add 40 or 30 Meters!* 14 foot boom and tight 17.25 feet turning radius. Fits on roof tri-pod, mast or medium duty tower. Hy-Gain's *patented* broadbanding *ParaSleeve* gives you less than 2:1 VSWR. 1.5kW PEP. *BetaMATCH*™ provides DC ground to eliminate static. Has BN-86 balun. **QK-710, $179.95.** 30/40 Meter option kit for EXP-14.

DB-1015, $449.95. 7-element, 1.5 kW PEP, 10 & 15 Meters

This dual band beam for 10 and 15 Meters incorporates *Hy-Gain's* superior mechanical design and has been computer optimized and range-tested for max performance. **DB-1015** features a 14 foot boom in 4 sections. Handles full legal power and has *Hy-Gain's* rugged boom-to-mast clamp. **DB-1217, $449.95.** Similar to DB-1015, but is dual band coverage for 12 and 17 Meters.

Model No.	Retail Price	No. of elements	avg gain dBi	avg F/B gain	MaxPwr watts PEP	Bands Covered	Wind sq.ft. area	Wind *(mph)* Survival	Boom (feet)	Longest Elem. (ft)	Turning radius(ft)	Weight (lbs.)	Mast dia O.D.(in.)	Recom. Rotator
TH-11DX	$1199.95	8.4	22	3	4000	10,12,15,17,20	12.5	100	24	37	22	88	1.9-2.5	T2X
TH-7DX	**$899.95**	**8.77**	**21**	**2**	**1500**	**10, 15, 20**	**9.4**	**100**	**24**	**31**	**20**	**75**	**1.5-2.5**	**HAM-IV**
TH-5MK2	$789.95	8.3	20	4	1500	10, 15, 20	7.4	100	19	31.5	18.42	57	1.5-2.5	HAM-IV
TH-3MK4	**$499.95**	**8.0**	**25**	**7**	**1500**	**10, 15, 20**	**4.6**	**95**	**14**	**27.42**	**15.33**	**35**	**1.9-2.5**	**CD-45II**
TH-3JRS	$379.95	8.0	25	7	600	10, 15, 20	3.35	80	12	27.25	14.75	21	1.25-2.0	CD-45II
TH-2MK3	**$389.95**	**5.6**	**15-20**	**9.8**	**1500**	**10, 15, 20**	**3.25**	**80**	**6**	**27.3**	**14.25**	**20**	**1.9-2.5**	**CD-45II**
EXP-14	$629.95	8.1	25	9.8	1500	10,15,20 opt. 30/40	7.5	100	14	31.5	17.25	45	1.9-2.5	HAM IV
DB-1015	**$449.95**	11	5	**22**	**1500**	**10, 15**	**6.7**	**115**	**14**	**29.5**	**16.3**	**40**	**1.5-2.5**	**HAM IV**
DB-1217	$449.95	**7**	**3**	22	1500	12, 17	6.7	115	14	29.5	16.3	40	1.5-2.5	HAM IV

Hy-Gain Long Johns HF Monobanders

LJ-105CA, $289.95. 10 Meters, 5 elements, Exclusive 50 Ohm *BetaMatch*™. Excellent DC Ground. Stainless steel hardware and clamps. BN-4000 Balun recommended.
LJ-155CA, $429.95. 15/12 Meters, Five Elements, Exclusive 50 Ohm *BetaMatch*™. Excellent DC Ground. Stainless steel hardware and clamps. Includes 12 Meter setting. BN-4000 Balun recommended.
LJ-205CA, $769.95. 20/17 Meters, Five Elements. Exclusive 50 Ohm *BetaMatch*™. Excellent DC Ground. Stainless steel hardware and clamps. BN-4000 Balun recommended. Manual has setting for both bands.
LJ-204BA, $539.95. 20/17 Meters, Four Elements. Exclusive 50 Ohm *BetaMatch*™. The LJ-204BA has a tiltable cast aluminum boom-to-mast clamp, heavy gauge machine-formed element-to-boom brackets and stainless steel hardware and clamps. BN-4000 Balun is recommended. Manual has setting for both bands.
LJ-103BA, $179.95. 10 Meters, Three Elements. Feeds with 50 Ohm coax, comes factory pre-tuned with Hy-Gain's exclusive *BetaMatch*™. BN-86 balun recommended. Includes stainless steel hardware and clamps.
LJ-153BA, $229.95. 15 Meters, 3 elements. Feeds with 50 Ohm coax, *BetaMatch*™, 5.7 dBd gain. BN-4000 Balun recommended. Stainless steel hardware and clamps.
LJ-203BA, $329.95. 20 Meters, Three elements on a 16 foot boom. The LJ-203BA feeds with 50 Ohm coax, factory pre-tuned with Hy-Gain's exclusive *BetaMatch*™.

BN-4000 Balun is recommended. Stainless steel hardware and clamps. Tiltable, cast aluminum boom-to-mast bracket.

Model #	Gain (dBi)	F/B Max	Max Power	Boom Size	ele. length	turn Radius	Mast diam.	Surface	Wind
LJ-105CA	10.8 dBi	36 dB	1500 W PEP	24 feet	18 feet	15 feet	1.9-2.5 in.	3.9 sq. feet	100 m.p.h.
LJ-155CA	9.8 dBi	25 dB	1500 W PEP	26 feet	25 feet	17 feet, 6 in.	1.9-2.5 in.	5.2 sq. feet	88 m.p.h.
LJ-205CA	8.7 dBi	30 dB	1500 W PEP	34 feet	36 feet	25 feet	1.9-2.5 in.	9.0 sq. feet	99 m.p.h.
LJ-204BA	8.2 dBi	28 dB	1500 W PEP	26 feet	36 feet, 6 in.	22 feet, 6 in.	1.9-2.5 in.	7.3 sq. feet	100 m.p.h.
LJ-103BA	7.9 dBi	24 dB	1500 W PEP	8 feet	18 feet, 7 in.	10 feet, 2 in.	1.625-2.0 in.	2 sq. feet	107 m.p.h.
LJ-153BA	7.9 dBi	25 dB	1500 W PEP	12 feet	24 feet, 11"	14 feet, 3 in.	1.9-2.5 in.	3 sq. feet	80 m.p.h.
LJ-203BA	7.3 dBi	23 dB	1500 W PEP	16 feet, 6 in.	37 feet	20 feet	1.9-2.5 in.	5.4 sq. feet	80 m.p.h.

Hy-Gain Discoverer Series Antennas

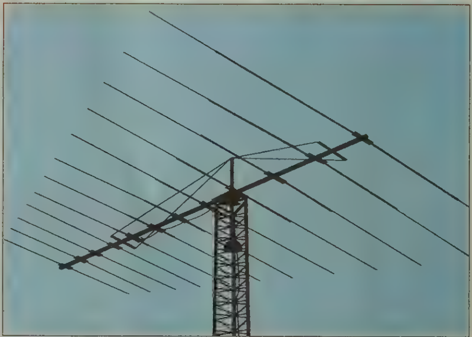
DISCOVERER 71, $369.95.
Covers 40/30 Meters.
This rotatable dipole of low weight and wind surface area so easily fits most existing beam installations. Tuned to 30 or 40 Meters with a front-to-side ratio of 30 dB for a fast, expansion of band capability. Feeds with 50 Ohm coax. Pre-formed mast clamp.
DISCOVERER 72, $799.95.
Covers 40 Meters.
This two-element 40 Meter beam has a unique hairpin loading system. It delivers superior performance. Feeds with 50 Ohm coax and comes factory pre-tuned with Hy-Gain's exclusive *BetaMatch*™. Tiltable boom-to-mast bracket and stainless steel hardware is included. Hy-Gain high power BN-4000 balun is recommended.
DIR-73K, $549.95.
Add-On 30/40 Meter Director Kit
Converts the Discoverer 72 into a three-element beam. Amazingly, it's all on a 35 foot boom, outperforming the other brands that are much larger. Discoverer 72 with director Kit fits on medium duty towers such asHG-52SS, saving both cost and space. HyGain offers wide bandwidth and Hy-Q efficiency without coils. Handle legal power limits.

Model #	Gain (dBi)	F/B Max	Max Power	Boom size	elment size	turn Radius	Mast diam.	Surface	Wind
DIS-71	6.5 dBi	35 dB	1500 W PEP	2.7 feet	45 feet	22.5 feet	1.9-2.5 in.	2.7 sq. feet	100 m.p.h.
DIS-72	6.5 dBi	15 dB	1500 W PEP	22.6 feet	44.8 feet	25 feet	1.9-2.5 in.	6.0 sq. feet	80 m.p.h.
DIR-73K	7.5 dBi	26 dB	1500 W PEP	35 feet	45.7 feet	28.9 feet	1.9-2.5 in.	9.0 sq. feet	80 m.p.h.

Hy-Gain HF Log Periodic Antennas

LP-1009A, $1429.95. LP-1009A for UHF connector. LP-1009AN for "N" connector. Covers *10/12/15/17/20 Meters*
Covers the complete 13-30 MHz HF spectrum under a 2:1 VSWR. Built to commercial specifications, it is used by MARS, monitoring stations, marine and government radio stations around the world and now it's available to Hy-Gain amateur customers. The discerning ham operator will appreciate its performance and ease of use. Just imagine all that spectrum coverage and only one feedline. Exclusive 2KW BN-4000 current type balun included. Use T2X Tailtwister or HDR-300A rotators.

LP-1010A, $1799.95. LP-1010A for UHF connector. LP-1010AN for "N" connector. Covers*10-30 MHz (10, 12, 15, 17, 20, and 30 Meters)*
There are only a few antennas that offer as much HF frequency coverage as the LP-1010A. Like the LP-1009A, this antenna is built to commercial standards using stainless steel hardware and having a wind survivability of 93 mph. Rotatable with use of T2X or HDR-300A rotators.



Model #	Gain (dBi)	F/B Max	Max Power	Boom size	ele. length	turn Radius	Mast diam.	Surface	Wind
LP-1009A/N	7.3 dBi	22 dB	1500 W PEP	27 feet	39 feet	22.5 feet	1.9-2.5 in.	12.5 sq. feet	103 m.p.h.
LP-1010A/N	7.0 dBi	22 dB	1500 W PEP	36 feet	48 feet	28.5	1.9-2.5 in.	16 sq. feet	93 m.p.h.

Hy-Gain VHF Vertical Antennas

V-2R
$\$109^{95}$
Covers
138-175 MHz

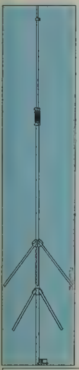
2 Meter vertical with 5.2 dBi gain derived from the famous extended double zepp antenna design. Radiating elements are two collinear 5/8 waves fed in phase. 2 sets of 1/4 wave radials properly decouple lower radiator from the mast. SO-239, handles 500 Watts. 9 ft.

V-4R
$\$109^{95}$
Covers
400-475 MHz

UHF vertical with 5.2 dBi gain derived from double zepp antenna design. Type N, handles 500 Watts, 4 foot.

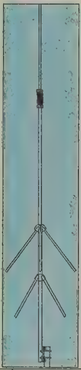
V-3R
$\$119^{95}$
Covers
216-225 MHz

1 1/4 Meter vertical w/5.2 dBi gain, double zepp design. SO-239, handles 500 Watts. 6ft., 9 in.



V-42R
$\$169^{95}$
Covers 143-153, and 436-455 MHz

V-42R is independently tunable at 144 and 440 MHz. Fed through one coax cable, it has sets of 1/4 wave radials which properly decouple 5/8 wave radiators from the mast. Gives 5 dBd gain UHF and 3 dBd gain on VHF. Type N, handles 200 Watts. 9 ft.

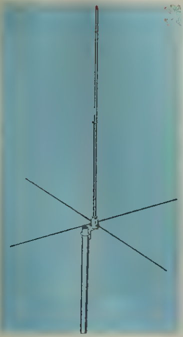


V-6R
$\$204^{95}$
Covers 51-54 MHz

V-6R antenna is based on 2 collinear 5/8 wave radiators. 500 Watt enclosed coil and 2 sets of 1/4 wave radials provide complete mast decoupling and optimum pattern and gain. Rugged design for severe weather, also DC ground lightning protector. 25 ft., 3 in., UHF female connect, handles 500 Watts.

Model#	Frequenc	Gain dBi	Pwr Input	Wind	Max Mast	Height	Weight
V-2R	138-175	5.2 dBi	500 Watts	105 mph	2 in. OD	9 foot	6 pounds
V-42R	143-153, 436-455	7.2 UHF 5.2 VHF	200 Watts continuous	100 mph	2 in. OD	9 foot	6 pounds
V-4R	400-475	5,2 dBi	500 Watts	130 mph	2 in. OD	4 foot	4 pounds
V-3R	216-225	5.2 dBi	500 Watts	100 mph	2 in. OD	6 ft. 9 in.	5 pounds
V-6R	51-54	5.2 dBi	500 Watts	80 mph	1.5-2.25	25 ft. 3 in.	15 pounds

Hy-Gain VHF Ground Planes



GPG-2B
$\$49^{95}$
Covers
142-185
MHz

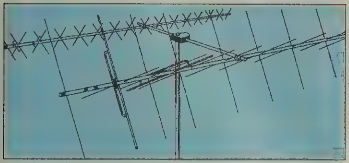
GPG-2B is a 5/8 Wavelength Ground Plane for two meters is omni-directional and tunable from 142-185 MHz. It delivers an omni-directional gain of 3.2 dBi. Handles 100 Watts. Measures 4 feet, max mast mount accepted is 1.625 in O.D. Wind area is .30 sq. ft.

GPG-1B
$\$39^{95}$
Covers
144-148
MHz

GPG-1B is a 1/4 Wavelength ground plane similar to the GPG-2B. It has unity gain, covers 144-148 MHz.

GPG-1, $39.95, is similar to GPG-1B, but covers162-174 MHz.

Oscar Link 435 MHz • 145.9 MHz



VB-216SAT
$\$229^{95}$
Covers
144-148 MHz

UB-7030SAT
$\$229^{95}$
Covers
432-438 MHz

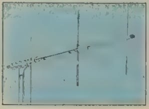
FB-217SAT
$\$119^{95}$
Crossboom
Assembly only

Hy-Gain's *Oscar Link* antennas are complete with the necessary phasing lines, relays and hardware. Left and right circularity switching reduces fading. True RF switching elements are rated at 200 Watts and improved VSWR for higher efficiency. Feed points are encapsulated, weather protected for long life. The fiberglass crossboom maintains the integrity of the circularity pattern. **DB-218SAT, $559.95**. The complete 2 Meter/ 440 MHz *Oscar Link* antenna system with crossboom assembly with necessary phasing lines, relays and hardware.

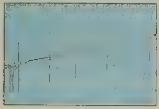
Model#	F/B ratio	Gain dBi	Pwr Input	# Element	Boom	Wind	Weight
VB-216SAT	25 dB	13.7 dBi	200 W PEP	16	168.75 in.	1.1 sq. ft.	7 lbs.
UB-7030SAT	25 dB	16.2 dBi	200 W PEP	30	134 inches	.7 sq. ft.	4 lbs.

VHF-FM Beam Antennas

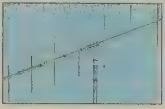
These 2 Meter FM beam antennas include Hy-Gain's exclusive *Beta Match*™ to provide exceptional Front-to-Back ratio and maximum obtainable gains. VB-23FM (8.3 dBi gain), VB-25FM (11.2 dBi gain), VB-28FM (14 dBi gain), and VB-214FM (15.2 dBi gain). Threaded stub for feedpoints. Accepts up to 2 inch mast.



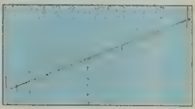
VB-23FM
$\$49^{95}$



VB-25FM
$\$59^{95}$



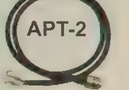
VB-28FM
$\$89^{95}$



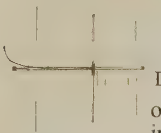
VB-214FM
$\$99^{95}$

Feedpoint Pig Tail Cable

APT-2, $12.95. Optional 2-foot length for connecting between antenna and coax. SO-239 on one end and 2 (#10) ring terminals on other. Fits *VB series* beams.



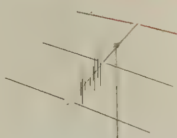
Dual Band Yagi Antenna



DB-2345
$\$89^{95}$
2 Meter/440
Dual Band Yagi

DB-2345 gives a whopping 8 dBi gain on 2-Meters and 6 dBi gain on 440 MHz. Has 3-elements on two meters and 5-elements on 440 MHz. Requires only one feedline for true *dual band* performance. Point in direction of your QSO for more direction of output power. This reduces interference and increases signal strength.

TriBand 2M/440MHz/6M Yagi

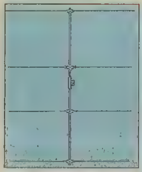


VHB-246
$\$259^{95}$
2 Meter/440/6M
Tri-Band Yagi

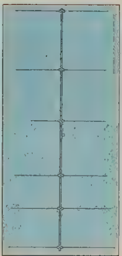
VHB-246 Tri-beam has 3 elements on 6M/2M and 5 elements on 440 MHz. 144/440 MHz are mounted at right angles to the 6M beam -- lets antenna be oriented for optimum 6M SSB/CW and 2M/440 MHz. Coax feed points for 6M and 2M/440 MHz.

Model#	F/B MAX	Gain dBi	Pwr Input	Long el	Boom	Mast dia.	Weight
VB-23FM	20 dB	8.3 dBi	500 Watts	40.25 in.	43.5 in.	2.0 in.	2 pounds
VB-25FM	20 dB	11.2 dBi	500 Watts	39.625 in.	75 in.	2.0 in.	3 pounds
VB-28FM	20 dB	14 dBi	500 Watts	40.25 in.	148.75 in.	2.0 in.	4 pounds
VB-214FM	20 dB	15.2 dBi	500 Watts	39.5 in.	15 ft. 6 in.	2.0 in.	6 pounds
DB-2345 - 2M VHB-246 - 2M	17 dB	8 dBi	500 Watts	40.5 in.	45 in.	1.5 in.	2 pounds
DB-2345 - 440 VHB-246 - 440	10 dB	6 dBi	500 Watts	40.5 in.	45 in.	1.5 in.	2 pounds
VHB-246-6M	20 dB	8 dBi	500 Watts	119 in.	144 in.	2.0 in.	28 pounds

6-Meter DX Beam Antennas



VB-64DX
$\$144^{95}$
50-54 MHz

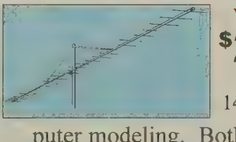


VB-66DX
$\$264^{95}$
Covers
50-54 MHz

The VB-64DX and VB-66DX feature a concept in beam construction that provides actual delivered performance equalling maximum theoretical gain. **The** 4-element VB-64DX generates an impressive 10.4 dBi gain and the 6-element VB-66DX increases the gain to an unprecedented 12.5 dBi.

Model#	Frequenc	Gain dBi	Pwr Input	wind area	#Element	Boom	Weight
UB-7031DX	420-438	19.8 dBi	2 kW PEP	1.9 sq. ft.	31	24.06 ft.	9.25 lbs.
VB-215DX	144-146	16.4 dBi	2 kW PEP	2.75 sq. ft.	15	27.88 ft.	13.56 lbs.
VB-64DX	50-54	10.4 dBi	500 Watts	1.1 sq. ft.	4	12 ft.	10 lbs.
VB-66DX	50-54	12.5 dBi	1.5kWPEP	1.8 sq. ft.	6	24.575 ft.	17 lbs.

VHF/UHF DX Beam Antennas



VB-215DX
$\$229^{95}$
Covers
144-146 MHz

Hy-Gain's DX-Series VHF/UHF Beams are based on the DL6WU element length and spacing and were further refined on Hy-Gain's antenna test range and by computer modeling. Both beams feature encapsulated weatherproof feedpoints with type N connectors for excellent VSWR and power handling. High quality mechanical construction is assured by heavy wall booms and boom supports made of 6063-T832 aluminum tubing, stainless steel hardware, UV stabilized thick-shoulder element insulators and PTFE coaxial baluns.

Hy-Gain LongJohn 10/12 Meter Beams

LJ-115 . . . 5-Elements . . . 9.7 dB Forward Gain . . .

LJ-115
$299⁹⁵

The Hygain LJ-115 is a five element 10/12 Meter beam antenna designed to give maximum performance.

It has a *whopping* forward gain of 9.7 dB and a great front-to-back ratio of 25 dB.

LJ-115 is constructed of the best quality aluminum tubing and uses a new *swaged* (tapered) design for maximum strength and lightest weight. It boasts an 80 MPH wind survivability.

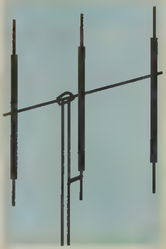
This powerful beam features Hy'Gain's exclusive *Beta-Match*™ system which matches the antenna to a 50 Ohm feedline and puts the driven element at DC ground for *noise-free* operation and lightning protection.

LJ-115 is easily rotated with a Hygain rotator for 360 degree coverage. *See* popular Hygain models AR-40 and CD-45II *on page 119.* Feed this antenna with any standard 52 Ohm coaxial cable.

Expect a 1.05:1 SWR at resonance if the antenna is mounted in the clear and care is taken in attaching the feedline. The SWR will remain below 1.5:1 over the entire 10 Meter frequency range.

LJ-113 . . . 3-Elements . . . 8.2 dB Forward Gain . . .

LJ-113, $169.95. Similar to LJ-115 but has three elements and a much smaller boom, 8 feet. It still delivers an amazing 8.2 dB forward gain and great front-to-back ratio.



ANTENNA SPECIFICATIONS		
	LJ-115	**LJ-113**
Forward Gain	9.7 dB	8.2 dB
Power Multiplication Factor	9.3	6.6
Front-to-Back Ratio	25 dB	20 dB
Typical SWR	1.05:1	1.05:1
Coaxial Feedline	52 Ohms	52 Ohms
Boom Length	18 feet	8 feet
Longest Element	18 feet	18 feet
Mast Diameter	$1\frac{5}{8}$ inch	$1\frac{1}{4}$ to $1\frac{5}{8}$ inch
Maximum Wind Survival	80 MPH	80 MPH
Net Weight	18.9 lbs.	6.8 lbs.

Hy-Gain 20/15/10/6 Meter *Rotatable* Dipole

TH-1
$299⁹⁵
UPS Shippable

TH-1 is a full-size *high-effiency* 26', 20-15-10-6 Meter full legal limit rotatable dipole that is super low-profile -- almost invisible from across the street! With a 13-foot turning radius and tiny 9 lb. weight, it fits on small roofs, apartments and condos -- easily turned by a lightweight TV rotator like *Hy-Gain*® AR-35.

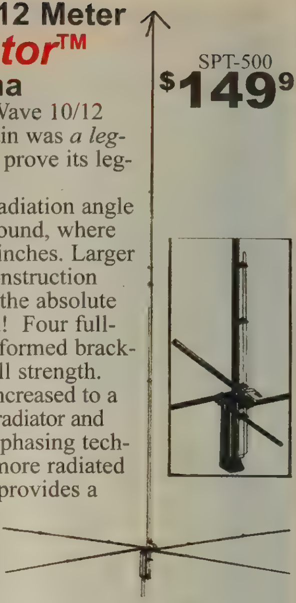
Mount in the attic for antenna restricted neighborhoods. *But it is no wimp!* Its bidirectional pattern can help reduce QRM and/or noise while maximizing your signal in the directions that you want -- so you can work some real DX. Handles up to a full 1500 Watts SSB/CW on all HF bands and Six Meters.

Hy-gain 6M *Add-On* Dipole Kit

MK-6
$39⁹⁵
UPS Shippable

Adds 6-Meter capability to most HF yagis or rotatable dipoles. Mounted to driven element of most HF rotatable dipoles or HF single-band/multi-band beams without affecting antenna's performance. Handles 1.5 kW. Adds less than 1 lb. weight and essentially no increase in wind-loading to the existing antenna. HF beam must be direct-fed with coax, or a 1:1 balun that handles 1.5 kW. Power may be limited by the power handling of the installed balun on HF beam.

Hy-Gain 5/8 Wave 10/12 Meter *Super-Penetrator*™ Vertical Antenna



SPT-500
$149⁹⁵

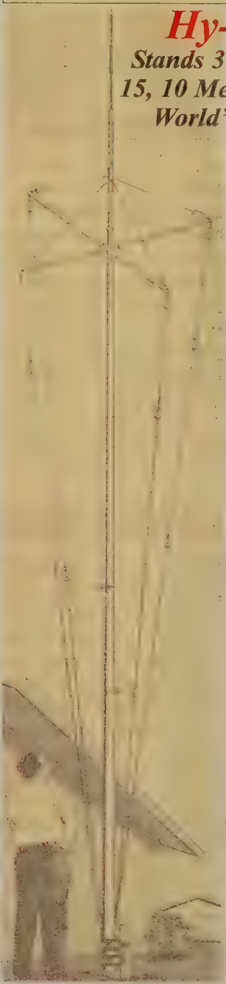
This fantastic *true full-size* 5/8 Wave 10/12 Meter vertical antenna from Hy-Gain was *a legend in the 70's* . . . now it's back to prove its legendary status once again!

A Full-size radiator with lower radiation angle concentrates power closer to the ground, where you want it. Measures 22 foot, 9.5 inches. Larger diameter, heavy wall ply-tubular construction makes the new *Super-Penetrator*™ the absolute top omnidirectional antenna around! Four full-length radials and special machine-formed brackets give extra talk-power and overall strength.

Electrical performance has been increased to a new standard by the use of a longer radiator and *double-matching tuning* with linear phasing techniques that provide low SWR and more radiated energy. The *double-matching* also provides a DC path to ground to drain off precipitation static, giving an extremely low noise antenna capable of high power.

SPT-500 is specifically designed to accept AM-FM-SSB-DSB signals with low loss. Handles 1.5 killowatts. This antenna is illegal for 11 Meters use.

SPT-500 ANTENNA SPECIFICATIONS	
Gain (dB)	5.3 dB
SWR ***(at resonance)***	Less than 1.2:1
Nominal input impedance	52 Ohms
Lightning Protection	DC Ground
Height	Twenty-two feet, six inches
Radial Length	Eight feet nine inches
Wind (Survival)	80 MPH
Accepted mast size	$1\frac{1}{4}$ to $1\frac{5}{8}$ inches OD



Hy-Gain HyTower-Jr™

Stands 39 feet tall . . . Full 1/4 Wave on 40, 20, 15, 10 Meters . . . Cage loading on 80 Meters . . . World's Second Best Vertical Antenna . . .*

AV-18HTJr.
$349⁹⁵
UPS Shippable

Standing a tall 39 feet with *full-size* elements and rated at 5 KW, the AV-18JR *Hygain HyTower-Jr.*™ is the world's *second best** performing vertical!

Stub-decoupling is used to give *full-size* quarter wave radiators on 40, 20, 15, 10 Meters with super efficient cage loading on 80 Meters.

The *HyTower-Jr*™ has almost no losses -- your ground system determines your efficiency.

It is automatic bandswitching, fed with 50 Ohm coax and has low SWR over an exceptionally wide bandwidth with SWR less than 1.2 at resonance.

The main radiator is aircraft high-strength, heavy walled, 2-inch aluminum tubing swedged at the top. Self-supporting in winds up to 40 MPH.

Mounts on $1\frac{1}{4}$ inch plumber's pipe. Heavy duty components will give you years of trouble-free operating pleasure.

Requires good ground system for optimum performance. UPS Shippable.

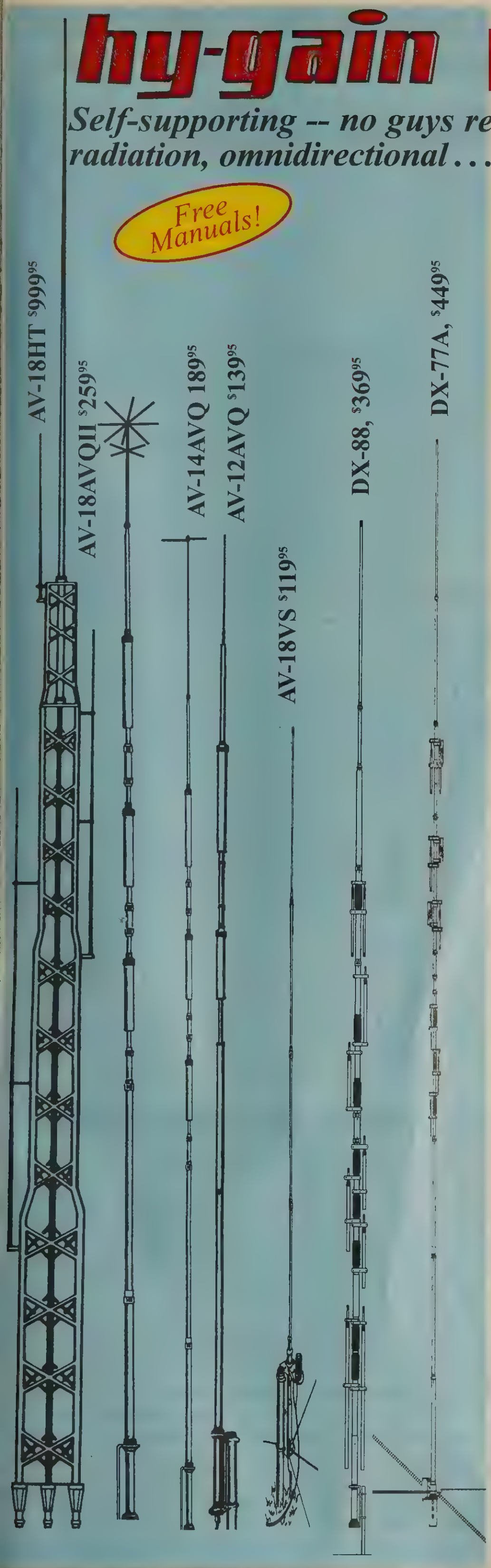
***The** famous 53 foot *Hy-gain HyTower*™ is legendary. It's the premier, best performing vertical in the world -- bar none!

At less than half the price with nearly the *same* performance and based on the *same* principles, the *HyTowerJr*™ is the poor man's version of its father *HyTower*.

Of course, *Junior*™ doesn't have its father's rugged hot-dipped galvanized steel tower and construction! But it is a super performer for sure at half the price!

hy-gain HF VERTICALS

Self-supporting -- no guys required . . . remarkable DX performance -- low angle radiation, omnidirectional . . . 1500 Watts . . . Low SWR . . . 2 year limited warranty



All hy-gain multi-band vertical antennas are entirely self supporting -- no guys required. They offer remarkable DX performance with their extremely low angle of radiation and omnidirectional pattern.

All hy-gain vertical antennas handle 1500 Watts PEP SSB, have low SWR, automatic band-switching (except AV-18VS) and include a 12-inch heavy duty mast support bracket (except AV-18HT). Heavy duty, slotted, tapered swaged, aircraft quality aluminum tubing with full circumference compression clamps is used for radiators. Includes all stainless steel hardware. Recessed SO-239 prevents moisture damage.

Hy-gain verticals go up easily with just hand tools and their cost is surprisingly low. All hy-gain Verticals feature a two year limited warranty.

AV-18HT, $999.95.

10/12/15/20/40/80 M

17 & 160 Meters optional

Standing 53 feet tall, the famous *Hy-Gain HyTower* is the world's best performing vertical! The AV-18HT features automatic band selection achieved through a unique stub-decoupling system which effectively isolates various sections of the antenna so that an electrical 1/4 wavelength (or odd multiple of a 1/4 wavelength) exists on all bands. Approximately 250 kHz bandwidth at 2:1 VSWR on 80 Meters. With the addition of a base loading coil LC-160Q or MK-160A, it also provides exceptional 160 Meter performance. The 24 foot tower is all rugged, hot-dip galvanized steel and all hardware is iridited for corrosion resistance. Special tilt-over hinged base for easy raising and lowering. 53 feet, 114 lbs. **MK-17, $89.95.** 17M add-on Kit. **LC-160Q, $109.95.** 160 M loading coil. **MK-160A, $119.95.** 160M 1500W kit.

DX-88, $369.95.

10/12/15/17/20/30/40/80M

160 Meters optional.

All bands are *easily* tuned with the DX-88's *exclusive* adjustable capacitors. 80 and 40 Meters can even be tuned from the ground without having to lower the antenna. Super heavy-duty construction. 25 feet, 18 pounds. **DX-88 OPTIONS:** **KIT-160-88, $199.95.** 160 M add-on kit. **GRK-88, $99.95.** Ground Radial System. **RRK-88, $99.95.** Roof Radial System.

DX-77A, $449.95.

10/12/15/17/20/30/40 M

No ground radials required! Off-center-fed Windom has 55% greater bandwidth than competitive verticals. Heavy-duty tiltable base. Each band independently tunable. 29 feet, 25 pounds.

AV-18AVQII, $259.95.

10/15/20/40/80 Meters

The classic is back with improved design including three separate air dielectric Hy-Q™ traps for 10 through 80 Meters --1.5 kW PEP. A loading coil and an effective radiator is used for 80 Meters --1kW PEP.

AV-14AVQ, $189.95.

10/15/20/40 Meters

The Hy-Gain AV-14AVQ uses the same trap design as the famous Hy-Gain Thunderbird beams. Three separate air dielectric Hy-Q traps with oversize coils give superb stability and 1/4 wave resonance on all bands. 18 feet, 9 pounds.

MK-80, $79.95. 80 Meter add-on kit for AV-14AVQ. Easy to install. In-cludes pre-wound loading coil, hardware.

AV-18VS, $119.95.

10/12/15/17/20/30/40/80 M

High quality construction and low cost make the AV-18VS an exceptional value. Easily tuned to any band by adjusting feed point at the base loading coil. Roof mount with Hy-Gain AV-14RMQ kit, $89.95. 18 feet, 4 pounds.

AV-12AVQ, $139.95.

10, 15, 20 Meters

The AV-12AVQ also uses Thunderbird beam design air dielectric traps for extremely Hy-Q performance. This is the way to go for inexpensive tri-band performance in limited space. 13 ft., 9 lbs. Roof mount with AV-14RMQ kit, $89.95.

AV-14RMQ, $89.95

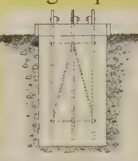
Roof Mounting Kit

The AV-14RMQ roof mounting kit provides rugged support for Hy-gain models AV-18VS, AV-14AVQ and AV-12AVQ. Kit includes base plate, mast, radial/guy wires and mounting hardware.

Model #	Price	Bands	Max Power	Height	Weight	Wind Surv.	Rec. Mast
AV-18HT	$999.95	10,15,20,40,80	1500 W PEP	53 feet	**114 pounds**	75 MPH	------
AV-14AVQ	**$189.95**	**10,15,20,40**	**1500 W PEP**	**18 feet**	**9 pounds**	80 MPH	**1.5-1.625"**
AV-12AVQ	$139.95	10/15/20 M	1500 W PEP	13 feet	9 pounds	**80 MPH**	1.5-1.625"
AV-18VS	**$119.95**	**10 - 80 M**	**1500 W PEP**	**18 feet**	**4 pounds**	**80 MPH**	**1.5-1.625"**
DX-88	$369.95	10 - 80 M	1500 W PEP	25 feet	24 pounds	75 mph no guy	1.5-1.625"
DX-77A	**$449.95**	**10 - 40 M**	**1500 W PEP**	**29 feet**	**25 pounds**	**60 mph no guy**	**1.5-1.625"**
AV-18AVQII	$259.95	10,15,20,40,80	1500WPEP	18 feet	12 pounds	70 mph guy	1.5-1.625"

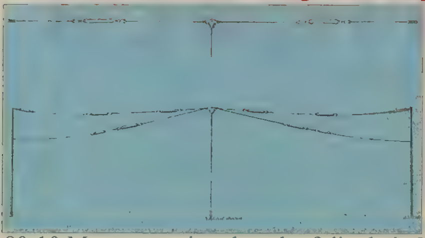
Hy-Gain Tower Bases

Specially designed for *Hy-gain* crank-up towers. Complete with base hinge and foundation welded steel-cage. Specify tower model. ***Must** be shipped by truck, call for quote.



Model#	Tower	Price	Weight
TB-37	HG-37SS	$299.95	50 lbs.*
TB-52	HG-52SS	$299.95	80 lbs.*
TB-54	HG-54HD	$299.95	90 lbs.*
TB-70	HG-70HD	$349.95	102 lbs.*

HF Multiband *Hy-Q* trap DOUBLETS

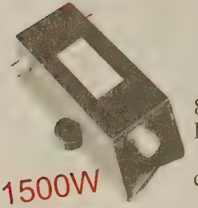


DP-2BDQ	DP-5BDQ
$139.95	$259.95
40/80 Meters	10-80 Meters

DP-2BDQ is a multiband Hy-Q trap doublet for 40/80 Meters, 101 feet maximum length of dipole.

DP-5BDQ, $259.95. 80-10 Meters, maxium length of dipole is 94 feet. The Hy-Gain DP-2BDQ and DP-5BDQ are Hi-Q trap doublets designed for horizontal or inverted "V" rated at legal power. Both feature individually pretuned matched traps for each band. 50 Ohm feed. Coaxial cable not included. Both handle 2 kW PEP.

Heavy Duty HY-GAIN BALUNS



BN-86
$79.95
1.5 kW

BN-86 is a broadband 50 Ohm ferrite balun. It is useable from 3-30 MHz.

Rated at 1500 Watts. The BN-86 is recommended for all HF Yagi antennas. Provides improved front-to-back ratio.

Includes clamp to bolt to boom, has SO-239 connector.

BN-4000 series are broadband 50 Ohm Beam current baluns. They are potted to seal out moisture. Each handles 4000 Watts. Range is 1 MHz to 54 MHz. SO-239 connector.

BN-4000D, $109.95. For Dipoles.

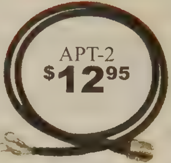
BN-4000B
$109.95
4000 Watts

BN-4000N, $119.95. With "N" connector.

Hy-gain Antenna Feedpoint Pig Tail

Hy-gain's Antenna Feedpoint *Pig Tail* cable has 2-foot length for connecting between antenna and your coaxial feedline. Has SO-239 connector on one end and 2 (#10) ring terminals on the other end. Provides an easy and reliable connection for your feedline with PL-259 connector to your antenna feed point.

Use this for Hy-gain *VB series* beams and other antennas without an SO-239 connector feed point.



APT-2
$12.95

Hy-Gain Lightning Surge Protector

Safe-guard your expensive equipment from static electricity and lightning induced surges on 50 Ohm coaxial line.

LA-2
$39.95

1.5kWatts
Guardian Angel
Lightning Surge Protector™
for 50 ohm coax
IN
OUT

Hy-Gain's *Guardian Angel™* Lightning Surge Protector has an *Ultra-fast* gas discharge tube that safely shunts up to 5000 amps of peak impulse current harmlessly to an independent ground.

SWR less than 1.1:1. Less than 0.1 dB loss. Use up to 1000 MHz. LA-2 handles 1.5 kW PEP. LA-2 *does not* protect against a direct lightning hit. **MFJ-97H, $17.95.** Replace gas discharge tube.

Hy-Gain^(R) *Guy-Wire Gripper*

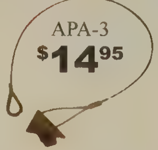
Hy-gain's *Guy-Wire Gripper* turns the horrendous job of tightening guy wires into a easy one man operation. This wonder tool works together with a *"come-a-long"* cable puller to hold/stretch guy wire or cable. Spring loaded for easy operation. Use for guy wire or cable up to 1/4" diameter.

GWH-1
$24.95

Hy-Gain^(R) Arrowpoint Anchor

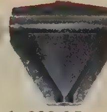
Hy-gain's Arrow Point Anchor is made of high quality 13 gauge steel. This 3 inch *Arrow Point Anchor* has a 36 inch integral swiveling 1/8" steel cable. Superior pullout resistance up to 2000 lbs.

Use this *ArrowPoint anchor* to secure antennas, towers, tarps, trees, carports, flagpoles and much more. It is easy to install with this optional Hy-Gain drive rod, **DR-3, $29.95.**



APA-3
$14.95

HY-GAIN INSULATORS FOR MULTIBAND DIPOLE ANTENNA



C-1, $29.95. Center Insulator for multiband dipole antenna.

E-1, $6.95. 7-inch End Insulator for Multiband doublet antenna. 5/16" holes. Set of 2.

C-1C, $29.95. Similar to C-1, but has SO-239 antenna connector.

E-2, 79¢ ea. E-2-6, $4.56, *6-pack.* Glazed ceramic insulator won't break, arc over or melt even under full power. 5/16" holes.

Hy-Gain 4 Foot Ground Rod

GR-1
$9.95

Durable 4' *copper bonded* steel earth ground rod is a tough 3/8 in. diameter. *Sharp* pointed end makes it easy to drive it into the ground. *Special screw-clamp* makes it easy to attach ground wires. GR-1 will help you bleed off static, RFI and prevent RF hot spots. Use several to form RF ground for long wire antennas.

Water pipe/tower leg ground clamp

GC-1
$4.95

Clamps securely onto water pipe or ground rod. Fits pipe/rod 1/2 to 1". Ground wire hole accepts wire size to 9/32 in diameter. Swiveled 1/2 section allows easy removing. UL/CUL listed.

Self-Supporting Ant. Mast Tripod

Upper Mast Support Bracket
Lower Mast Support Bracket
33"

TP-3
$44.95

Bolt-on Swivel Base Feet have a *torque* lock-nut and adjust for most any type of roof or other surface.

This heavy-duty three-foot tripod self-supports masts up to 1.75 inches diameter and will support most Hy-Gain vertical antennas. Great for ground/roof mounting. TP-3 doesn't include mast.

Features a universal mast clamp and bottom support bracket that helps stabilize your antenna system. TP-3 will fold for easy storage and travel.

Bolt-on *swivel* feet adjust to most any type roof or other surface. It is quick and easy to put up your antenna system using screws in the three base feet. *And . . .* you can rest assured that your tower is securely anchored for trouble-free service. A *torque* lock-nut is used for the bolt-on feet.

TP-3 is hot-dip galvanized for long-lasting protection from the outdoor elements. Get your antenna *up-in-the-air* where it belongs!

HG-6, $24.95. Six Foot Galvanized Mounting Pipe
2 inches OD, 16 gauge Galvanized Steel Mast Pipe. Use for ground mount pipe or rotator mast.

AGK-8, $59.95. 3-Point Guy Wire Kit
For vertical antenna or antenna mast. Consists of guy brackets, thimbles, galvanized steel stakes and 150' Danscord rope. Everything needed to secure your antenna/mast safely for high winds.

Pipe-to-Pipe Mast Mount Kit

PTP-150
$39.95

Heavy Duty extruded-aluminum clamp assembly with 5/16x6" SS bolts secures tubing either in-line or at 90-degrees. Support large Yagis without drilling the boom, attach masts to railings, extend support tubes, or add cross-sections to verticals for extra bands. Includes eight clamps and stainless steel hardware. Fits mast pipe 1" to 2 in. Max combined pipe size 4". Hold up to 10 lbs., 5 ft. from center.

Hy-Gain Antenna Rope

B polyester

Wire Antenna Installation Rope. Select MFJ Nylon or Polyester dacron rope for your wire antenna installations. Black and UV resistant.

A. RPA-100, $9.95. 100 feet, 3/32 inch nylon rope.

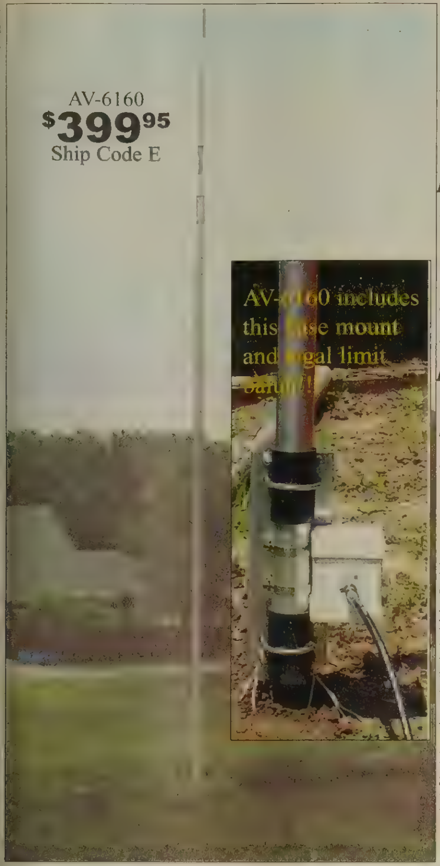
A. RPA-250, $18.95. 250 feet, 3/32 inch nylon rope.

B. RPC-100, $12.95. 100 ft, 3/16 inch polyester rope.

B. RPC-250, $29.95. 250 ft., 3/16 inch polyester rope.

Hy-Gain(R) 160-6 Meters Self-Supporting Vertical Antenna
Full 1500 Watts, 43 feet, includes base mount, great for stealth

AV-6160
$399.95
Ship Code E



Operate all bands 160-6 Meters at full 1500 Watt with this self-supporting, 43 feet high performance vertical!

It assembles in less than an hour and its low profile blends in with the sky and trees -- you can barely see it . . .

Exceptional Performance

The entire length radiates to provide exceptional low angle radiation 160-20 Meters and very good performance on 17-6 Meters.

You can shorten it by telescoping it down for more effective low angle radiation on higher bands.

Just talk with automatic tuner!

A wide-range automatic or manual antenna tuner *at your rig* easily matches this antenna for all bands 160-6 Meters.

There's no physical tuning adjustments on the antenna -- you simply put it up! **Includes** ATB-65 base mount. *See below.*

An optimized balun design allows *direct coax feed* with negligible coax loss (typically less than 1/2 dB 60-6 Meters and less than 1 dB 160-80 Meters with good quality, low-loss coax).

Extremely low wind loading

With just 2 square feet wind load, the AV-6160 has the lowest wind-loading and lowest visibility of any vertical antenna!

Its 2-inch O.D.and .120 inch thick walled tubing bottom section makes it incredibly strong.

Just 20 lbs., uses super-strong *6063 aircraft aluminum tubing.* Stainless steel hardware.

Assembles in an hour

Ground mounting lets you hide antenna base in shrubbery. Requires ground system -- at least one radial. More extensive ground systems work even better. Optional **GRK-6160, $34.95.** All-band ground radial kit. *See bottom right.*

Stealth Operation

Low profile. Hide behind trees, fences, buildings, bushes. Use it as a flagpole. It easily telescopes down during the day.

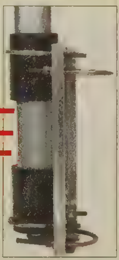
64', 11-Sect. Telescopic *Aluminum Mast*

ATM-65
$199.95
Ship Code D

Includes one size of each slitted tube listed above and ten hose clamps. This is a *super-strong* heavy duty telescoping MAST, not a flimsy pole! Mast is made of .120 inch *thick wall* aluminum tubing. ATM-65 is 64 feet fully extended and 6 feet collapsed without clamps. Guying is required if mast is extended beyond 30 feet. Top section is .625" OD. Bottom section is 2 inches OD x .120 wall.

Base Mount for Fiberglass and Aluminum Masts

ATB-65, $69.95. Complete base assembly kit with mounting plate, insulators, hardware, SO-239, etc. for fiberglass and aluminum masts. Fits up to 2.0" OD masts.



1.5kW 80/160M *high-efficiency* Matching Network

AV-6110
$299.95
Ship Code B

AV-6110
80/160 Meter
Matching
Network

AV-6110 improves efficiency on 160 and 80 Meters for the popular new 43-foot all band vertical antennas by eliminating SWR-related coax and unun mismatch losses. When fed with a 1:4 unun, the 43' antenna has a reasonable compromise SWR on 60-10 Meters. However, at 160/80 Meters it is virtually impossible to match this antenna because of the low radiation resistance. If you are using low loss coax, you will lose much power in the coax and unun due to bad antenna mismatches. Installed at the base of the 43' vertical, AV-6110 will significantly eliminate these losses and put 160 and 80 Meters back within the tuning range of the tuner inside the shack. Includes high-voltage insulated base tube, remote power injector with switch for 160, 80 Meters and off positions. Handles 1.5kW. Matching box mounted in a rugged, weather-resistant PVC housing, Fits at forty-three foot antenna base, just 3Wx16Hx3D inches.

New! *600 Watts* 80/160 Meter Matching Network

AV-6108, $249.95. Has all features of the AV-6110, but handles 600 Watts on 80 and 300 Watts on 160M. 3Wx11Hx3D".

160 Meter Tuner Range Extender for 43' Verticals

AV-6104
$79.95
Ship Code B

Forty-three foot vertical antennas have become very popular in recent years. However, on 160 Meters, these antennas have a very high reactance and high voltage at the antenna feedpoint. Tuning with a tuner results in maximum efficiency 80-10 Meters, but conditions at 160M present a major challenge for most tuners. To get around this problem, add the range extender to the base of the antenna to increase 160M matching capabilities. Reduces reactance and puts the antenna in range of the automatic or manual tuner. Potentially damaging high-voltage currents are reduced -- preventing damage to the tuner. 1.5 kW. Weather-resistant PVC, ceramic feedthru connectors for input/output. Shorting jumper connection when 160 Meters is not in use. 3 1/2Wx3 1/2 Hx11D". Use with MFJ-998RT/MFJ-994BRT or other automatic/manual tuners.

AV-6102, $59.95. Like AV-6104, 300 Watts, 5-way binding posts for in/out. 3 1/2W x3 1/2Hx7D". Use with MFJ-926B/927/993BRT auto tuners or manual tuners.

Universal Vertical Tilt Base

ATB-75
$79.95
Ship Code B

A unique design allows this tilt base to fit most vertical antennas with or without a base bracket. Pre-punched hole makes it easy to mount many different type of verticals. Fits Hygain's AV18VS/14VS/18AVQ/680/640/620/AV-6160, Cushcraft R8/R9, MFJ-1796/1798/2990 and others with tube bases or masts up to 2 1/4" OD. Mount one side of the tilt base to the mast and the other to the base. *No climbing a ladder -- raise antenna up/down easily before severe weather by yourself* -- just walk it up or walk it down. Ground radial holes also provided. 1/8" thick aluminum. Includes (4) 2 1/4" U-bolts, (4) 1 1/2" U-bolts, mast saddles and stainless steel nuts/bolts.

All-band Ground Radials

GRK-6160
$34.95
Ship Code A

All-band ground radial system for the AV-6160 and other verticals requiring a radial system. Convenient and effective, it provides the necessary return path for ground currents to reduce ground losses. Consists of 2 sets of 4 radial wire assemblies giving a total of eight 14' radial wires. Each 1/4" ring lug for attaching to the antenna ground point. Each end of the radial wires has a solder lug for staking the wire end.

ROHN™ Steel Telescopic Masts & Vertical Mounting Accessories

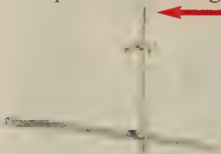
20/30/40/50 foot Telescoping Masts

Telescoping masts are pre-galvanized and come preassembled with hardware. Erecting mast is made by simply connecting guys and brackets to the attached heavy duty rolled edge guy rings and clamps, extending the sections, inserting locking cotter pins, rotating tubes to locked position and tightening the clamps. Features interior tube flanging combined with double-crimped exterior tube to produce stronger, more stable joint than common masts. Also prevents sections from accidentally pulling apart and allows easy disassembly, pulling each section through lower end. Each section extends deeper into lower tubes than other designs, adding more structure stability. 1¼", 16-gauge galvanized tubing for top, other sections are 18 gauge.

H-20, $79.95. 19 feet extended, 2 sections.
H-30, $109.95. 28 feet extended, 3 sections.
H-40, $169.95. 36 feet extended, 4 sections.
H-50, $199.95. 44 feet extended, 5 sections.
All above models ship by truck only.
H-950, $219.95. 34' ext., 5 sect. UPS shippable.

Deluxe "Y" Wall Mount Bracket

WMD-12, $49.95. 12-inch standoff with 3rd Leg for Mounting of Antenna Masts from 1 inch to 1.75 diameter and up to 10 foot Height, Standoff from Wall by 12 inches.



48" Galvanized Eave Mount Bracket

EVE-48, $39.95. Mount your mast on eave of a house. Lower Bracket is 16 gauge Hot Dip Galvanized steel, 48". Both upper/lower brackets are for masts up to 2¼" diameter with clamps, bolts and 2½" lag screws. Will standoff mast 2¼" from surface.

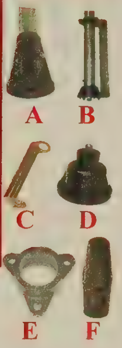
Antenna Mast Chimney Mount

EZ-29, $39.95. Four inch Stand-off, Deluxe "Y" with 18 Feet of Stainless Steel Straps to Wrap around Chimney.

6 Foot Galvanized Mounting Pipe

HG-6, $29.95. 5 feet, 2 inches OD, 16 AWG Galvanized steel Antenna Mast Pipe.

Hy-gain Vertical Antenna Mounting Hardware

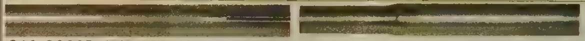


A. 463011, $14.00, Base tube insulator, fits 1¼" OD tube. Six $\frac{5}{16}$" mounting holes. Super strong, made of fiberglass filled ABS. Used in Hy-tower to isolate tower legs from ground. Tube not included.
B. 877130, $28.64, Vertical antenna bracket assembly. Includes bracket (C), base cover insulator (D), support insulator (E) and SO-239. Tube not included. Fits 1¼" tubing.
C. 160043-1, $11.84, Base mount bracket. Custom-tooled ⅛" thick x 12 inch length aluminum bracket with vertical ridges for super strength. Pre-punched holes for SO-239 or N-connector.
D. 863427, $6.90, Base cover insulator. Allows attachment of base tube. Has hollow center for antenna connector. Mold-in pin connects base tubing to connector.
E. 463056, $3.12, Base antenna support insulator. Made to fit top support of antenna bracket (C). Hole fits 1¼" OD tubing.
F. 460316, $12.96, Tubing coupler and insulator. Used to couple or insulate one inch tube to ⅞" tubing. Made of fiberglass filled ABS, 5 inches long.

Hy-gain Aluminum Tubing

6063 T832 round, drawn aluminum tubing sold in 2 styles: ***standard*** or ***slitted*** *one end, (.083" gaps, 1-2" slit lengths).* Available in 3 foot or 6 foot lenghts. Tubings are sized to allow telescoping into one another from 3/8" OD to 2½" OD. Select *slitted* for telescoping. Use Hy-gain hose clamps to secure.

6' Lg OD x Wall x ID	P/N No slit,	Price/ea	P/N Slitted	Price/ea.	$/Ad ft.
0.375"x.058"x0.250"	810-0375E-6U	$4.72	810-0375E-6S	$5.22	$0.79
0.500"x.058"x0.375"	810-0500E-6U	$4.88	810-0500E-6S	$5.38	$0.82
0.625"x.058"x0.555"	810-0625E-6U,	$5.79	810-0625E-6S,	$6.29	$1.04
0.750"x.058"x0.634"	810-0750E-6U,	$6.99	810-0750E-6S,	$7.49	$1.25
0.875"x.058"x0.759"	810-0875E-6U,	$7.49	810-0875E-6S,	$7.99	$1.33
1.000"x.058"x0.884"	810-1000E-6U,	$8.09	810-1000E-6S,	$8.59	$1.43
1.125"x.058"x1.009"	810-1125E-6U,	$8.99	810-1125E-6S,	$9.49	$1.58
1.250"x.058"x1.134"	810-1250E-6U,	$10.09	810-1250E-6S,	$10.59	$1.77
1.375"x.058"x1.259"	810-1375E-6U,	$11.19	810-1375E-6S,	$11.69	$1.95
1.500"x.058"x1.384"	810-1500E-6U,	$12.49	810-1500E-6S,	$12.99	$2.17
1.625"x.058"x1.509"	810-1625E-6U,	$13.99	810-1625E-6S,	$14.99	$2.50
1.750"x.058"x1.634"	810-1750E-6U,	$14.89	810-1750E-6S,	$15.89	$2.65
1.875"x.058"x1.751"	810-1875E-6U,	$15.99	810-1875E-6S,	$16.99	$2.65
2.000"x.058"x1.884"	810-2000E-6U,	$18.75	810-2000I-6S,	$19.75	$2.88
2.000"x.120"x1.760"	810-2000I-6U,	$27.49	810-2000E-6S,	$28.60	$4.78
2.125"x.058"x2.009"	810-2125E-6U,	$20.65	810-2125E-6S,	$21.65	$3.10
2.375"x.058"x2.259"	810-2375E-6U	$23.89	810-2375E-6S,	$24.89	$3.68
2.500"x.058"x2.384"	810-2500E-6U,	$26.15	810-2500E-6S,	$27.15	$4.65
3'Lg OD x Wall x ID	**P/N No Slit,**	**Price/ea**	**P/N Slitted**	**Price/ea.**	**$/Ad ft.**
0.375"x.058"x0.250"	810-0375E-3U,	$2.36	810-0375E-3S,	$2.61	$0.79
0.500"x0.58"x0.375"	810-0500E-3U,	$2.44	810-0500E-3S,	$2.69	$0.82
0.625"x.058"x0.555"	810-0625E-3U,	$2.89	810-0625E-3S,	$3.14	$1.04
0.750"x.058"x0.624"	810-0750E-3U,	$3.49	810-0750E-3S,	$3.74	$1.25
0.875"x.058"x0.759"	810-0875E-3U,	$3.75	810-0875E-3S,	$3.99	$1.33
1.000"x.058"x0.884"	810-1000E-3U,	$4.05	810-1000E-3S,	$4.29	$1.43
1.125"x.058"x1.009"	810-1125E-3U,	$4.50	810-1125E-3S,	$4.75	$1.58
1.250"x.058"x1.134"	810-1250E-3U,	$5.05	810-1250E-3S,	$5.29	$1.77
1.375"x.058"x1.259"	810-1375E-3U,	$5.60	810-1375E-3S,	$5.85	$1.95
1.500"x.058"x1.384"	810-1500E-3U,	$6.00	810-1500E-3S,	$6.50	$2.17
1.625"x.058"x1.509"	810-1625E-3U,	$7.00	810-1625E-3S,	$7.50	$2.50
1.750"x.058"x1.634"	810-1750E-3U,	$7.45	810-1750E-3S,	$7.95	$2.65
1.875"x.058"x1.751"	810-1875E-3U,	$8.00	810-1875E-3S,	$8.50	$2.65
2.000"x.058"x1.884"	810-2000E-3U,	$9.38	810-2000E-3S,	$9.88	$2.88
2.000'x.120"x1.760"	810-2000I-3U,	$13.75	810-2000I-3S,	$14.35	$4.78
2.125"x.058"x2.009"	810-2125E-3U,	$10.33	810-2125E-3S,	$10.83	$3.10
2.375"x.058"x2.259"	810-2375E-3U,	$11.95	810-2375E-3S,	$12.45	$3.68
2.500"x.058"x2.384"	810-2500E-3U,	$12.08	810-2500E-3S,	$15.38	$4.65



810-2000I-6W, $33.60 each. Unique tubing has one end slitted and one end swaged for stacking. Join two to make longer poles. Secure with standard hose clamp. Strong, 2"OD x .120" wall. Good for base sections of verticals. Standard 6-ft. length, longer sections, to 20 ft. available. Add $4.78 each add'l foot. **All tubing UPS Shippable. Call for shipping charge quote.**

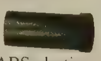
Hy-Gain Telescopic Fiberglass Tubing

Super-strong, heavy duty telescoping sections, .125 inch thick wall fiberglass

Size OD"	Part Number	6 ft.	6 ft. slit	Part Number	8 ft.	8 ft. slit
1/2"	884-40500-6(S)	$8.21	$10.46	884-40500-8(S)	$10.95	$13.95
3/4"	884-40750-6(S)	$9.71	$11.96	884-40750-8(S)	$12.95	$15.95
1"	884-41000-6(S)	$11.96	$14.21	884-41000-8(S)	$15.95	$18.95
1¼"	884-41250-6(S)	$16.46	$19.46	884-41250-8(S)	$21.95	$25.95
1½"	884-41500-6(S)	$18.71	$20.96	884-41500-8(S)	$24.95	$27.95
1¾"	884-41750-6(S)	$22.46	$25.46	884-41750-8(S)	$29.95	$33.95
2"	884-42000-6(S)	$26.96	$29.21	884-42000-8(S)	$35.95	$38.95
2¼"	884-42250-6(S)	$33.71	$35.96	884-42250-8(S)	$44.95	$47.95
2½"	884-42500-6(S)	$36.71	$39.71	884-42500-8(S)	$48.95	$52.95

Hy-gain Custom Made Precision Antenna Hardware

BMC-249, $79.95. ***Boom to Mast Clamp***
Heavy duty 1¼" OD thick aluminum die casted boom to mast clamp designed specifically for securing heavy antennas. It is capable of supporting 2" boom antennas, such as the TH-11DX, Long John Monobanders and other beams with a 2" boom. The BMC-249 allows mast to extend past the top of the clamp. This feature allows stacking of several antennas on one mast. Clamp is adjustable for mast sizes from 1¼" to 2¾" OD. The tilt-over feature permits easy assembly of the elements and simplifies maintenance of the antenna. 4Wx4Hx1¼" thick. Kit comes complete with stainless steel hardware.



Element Insulators These element insulators are made to fit the element bracket (right). Precision injection molded with black UV resisted ABS plastic.

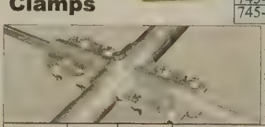
Part No.	Price	Fits these Element sizes	Insulator Size	Fits Element to boom clamp
465216	$3.42	$\frac{7}{16}$" OD	⅞"OD x 2¾"	163409
461057	$4.40	⅝" OD	1¼" OD x 3"	165919
463767	$4.40	⅞" OD	1¼" OD x 3"	165919
465833	$4.80	1¼" OD	1½" OD x 4"	165920

Hy-gain TH-series HF Beam Trap Caps

A. 464723, $.75 ea. Trap caps, for large Hy-gain TH-series traps.
B. 466221, $1.59 ea. Trap caps for Hy-gain TH-3Jr. traps.

Hygain Stainless Steel Hose Clamps

Part No.	Price	Description
745-3104S	$0.90	#4 Clamp for 3./32" OD to 5/8" OD tubing
745-3106S	$1.00	#6 Clamp for 3/4" OD to 7/8" OD tubing
745-3108S	$1.00	#8 Clamp for 7/16" OD to 1" OD tubing
745-3110S	$1.25	#10 Clamp for 1" OD to 1⅛" OD tubing
745-3112S	$125	#12 Clamp for 9/16" to 1/4" OD tubing
745-3116S	$1.25	#16 Clamp for 1¼"OD to 1⅝" OD tubing
745-3120S	$1.25	#20 Clamp for 3/4" OD to 1¾" OD tubing
745-3128S	$1.75	#28 Clamp for 1⅝" OD to 2" OD tubing



Element to Boom Clamps

High tensile strength aluminum alloy. Custom die stamps these clamps. No miss-drilled holes, fit perfect everytime. Required 2 clamps per element. Element Insulators available (left).

Part#	Price	Boom OD"	Element OD w/o insulator	Element OD w/insulator	Description	Insulator
161409	$2.71	2"	⅝"	---	2½x7"x.08 Thick, #12	None
163764	$3.80	2"	⅞"	$\frac{7}{16}$"	2⅜x7⅛"x.08 Thick, #4	465216
165919	$5.32	2"	1¼"	⅝", ⅞"	3¼x7¼"x.125 Thick, #13	463767, 461057
165920	$6.28	2"	1½"	1¼"	3¼x9½"x.125 Thick, #14	465833
160055	$1.22	1¼"	$\frac{7}{16}$"	---	¾x5"x.063 Thick, #0	None
161422	$3.63	1¼"	⅝"	---	2½x6½"x.08 Thick, #11	None
165141	$3.76	1¼"	⅞"	$\frac{7}{16}$"	2$\frac{5}{16}$x6⅝"x.08 Thick, #12	465216
165138	$5.20	1¼"	1¼"	⅝", ⅞"	2¾x6⅝"x.08 Thick, #1	463767, 461057
872223	$6.60	Stainless steel screws, nuts and washers for 1 set of element-to-boom clamp				

MIRAGE
2015 CATALOG
VHF/UHF Solid State Amplifiers

MIRAGE . . . 160 Watts on 2 Meters!

Turn your mobile, base or handheld into 160 Watt powerhouses and talk further, longer, clearer . . . All modes: FM, SSB, CW . . . Superb GaAsFET preamp . . . Has exclusive Active-Bias™ system for crisp, clear voice in SSB mode . . . True push-pull circuitry and clean RF layout for excellent stability . . . Overdrive and high SWR protection . . . Remote controllable with RC-2 . . .

B-2518-G
$399.95
Suggested Retail

MIRAGE's *most popular* amplifier gives you 160 Watts of output power for just 25 W in from your base/mobile rig!

The B-2518-G is ideal for your 20 to 60 Watt 2 Meter mobile or base station.

You'll talk further, longer, clearer on all modes -- FM, SSB, CW -- hear weak signals better than you've ever heard before!

You get a low noise 20 dB GaAsFET preamp with an excellent 1 dB noise figure for pulling out weak signals.

B-2518-G is *fully protected* with features found in expensive commercial amplifiers.

High SWR or excessive input power can damage your amplifier. Protection circuits automatically bypass your amplifier to prevent damage and an LED lights to warn you.

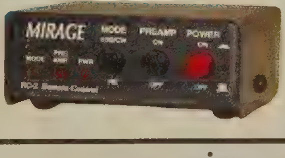
MIRAGE RUGGED!
FAULT
XMIT
PRE AMP
PWR
SSB / CW
FM
MODE
ON
OFF
PRE-AMP
ON
OFF
POWER
MIRAGE
B 2518 G
144-148 MHz

Active-Bias™ gives crisp, clear voice in SSB mode!

***New!* An** *Active-Bias™System* keeps SSB voice crisp and clear for fantastic operation. Other amplifiers using conventional bias methods tend to produce splatter and distortion as power level changes. This amp with *Active-Bias™* doesn't exhibit the problem.

Adjustable time delay gives you smooth transmit/receive switching. Remote external keying. You can remotely control your B-2518-G and place it out of the way. An RC-2, $49.95, Remote Control turns Power on/off, Preamp On/Off and select SSB/FM. Extra heavy duty custom heatsink spans the entire cabinet. Draws 17-22A from 13.8 VDC. Compact 12x3x5.5 inches.

Amp Remote Control



Remotely control your B-2518-G/B-5018-G/B-1018-G and place it out of the way. An RC-2, $49.95, Remote Control lets you turn *power on/off, preamp on/off, select SSB/ FM.* Other Mirage amps use RC-1. Call Mirage for positive compatibility.

More 160 Watt, 2-Meter Amplifiers

B-5018-G, $399.95.
For 20 to 60 Watt mobile or base stations. 160 Watts output for 50 Watts input.

B-1018-G, $449.95.
160 Watts output for 8 Watts input. For 0.25-15 Watt rigs.

Power Curve -- typical output power in Watts

B-1018-G	25	50	140	150	160	160	--	--	--	--	--
B-2518-G	5	7	40	60	80	100	125	160	--	--	--
B-5018-G	--	2	15	25	40	50	70	100	130	160	--
Watts In	0.25	0.5	3	5	8	10	15	25	35	50	--

MIRAGE . . . 6 Meter Amplifier

Bust through 6 Meters with 150 Watts of brute power and work exotic DX!

Low Noise GaAsFET Preamp

A-1015-G
$\$389^{95}$
Suggested Retail

FCC Type Accepted
SWR OVERLOAD
TX
A 1015 G
10W IN - 150W OUT
MIRAGE
SSB
FM
PRE-AMP ON
OFF
POWER

A built-in low noise GaAsFET receive preamp gives you 20 dB gain -- lets you dig out weak signals and score exotic DX on sporadic E!

The A-1015-G is the world's most popular all mode FM/SSB/CW 6 Meter amplifier.

Bust through 6 Meters with 150 Watts of brute power and work exotic DX! Power Curve chart shows typical output power.

The A-1015-G is ideal for your 1 to 15 Watt transceiver, mobile or base station.

You'll talk further, longer and clearer on all modes -- FM, SSB or CW. Hear weak signals better than you've ever heard before! Get up to 150 powerful Watts!

Extra heavy-duty heatsink spans entire length of cabinet.

Draws 18-22 amps at 13.8 VDC. Weighs just 5 pounds, measures a compact 12x3x5.5 inches.

Power Curve -- Typical A-1015-G Output Power in Watts.

Watts Out	6	22	42	63	84	98	122	142	150
Watts In	.25	1	2	3	4	5	7	9	10

MIRAGE 420-450 MHz AMPLIFIERS

D 1010 ATVN
MIRAGE
FM
OFF

D-1010-N
$\$449^{95}$
Suggested Retail

D-3010-N
$\$419^{95}$
Suggested Retail

All UHF models feature all modes: FM, SSB, CW, adjustable delay for SSB and remote control outlet.

They also have a heavy duty heatsink that spans entire length of cabinet, 50 Ohm impedance input and output, 13.8 VDC voltage.

D-3010-N -- 100 W out/30W in. For 5 to 45 Watt mobile/base.

D-1010-N -- 100 Watt/10W in. For handhelds or mobile/base.

MIRAGE D-Series Specifications

Model #	Price	Input	Output	Current
D-1010-N	$449.95	.30-15 W	5-110 W	20 amps
D-3010-N	$419.95	5-45 W	7-100 W	20 amps

RC-1 - Remote Control Head Use with Most Models

RC-1
$\$49^{95}$
Suggested Retail

POWER
MIRAGE
RC-1
PRE-AMP

FEATURES
- Easy remote operation with most models
- Preamp on/off
- Switch for SSB/FM operation
- 18 foot cabling included - Available in long lengths with special order
- Size: 3½Wx2¾Dx1½H inches
- Mod required for some models

•Compatible with all Mirage amps except for the following amplifiers: B-XX18-G, B-24-G, B-34, B-34-G, B-310-G, B-320-G, BD-25, BD-35, B-510-G, C-22-G, D-15-N, D-26-N, M-120-G, PAC-1070-B, PAC-15-100C, PAC-30-130-B.

MIRAGE Amateur Television Amplifiers

D 1010 ATVN
MIRAGE
FM
OFF

Specially designed for Amateur Television, 420-450 MHz

D-1010-ATVN
$\$469^{95}$
Suggested Retail

D-100-ATVN
$\$479^{95}$
Suggested Retail

D-1010-ATVN, $\$469^{95}$

10W In-52W Out (ATV-AVG)
10W In-82W Out (ATV-PEP)
10W In-100W Out (SSB/FM)

D-100-ATVN, $\$479^{95}$

2W In-52W Out (ATV-AVG)
2W In-82W Out (ATV-PEP)
2W In-100W Out (SSB/FM)

SPECIFICATIONS	D-1010-ATVN	D-100-ATVN
RF POWER IN.	1 Watt to 15 Watts	500 mWatts to 5 Watts
RF POWER OUT	100W(SSB/FM) 52W(ATV)	52 Watts
CURRENT	20 Amps	20 Amps
SIZE	12x3x5.5 inches	12x3x5.5 inches
WEIGHT	6 pounds	6 pounds

Commercial Grade Amplifiers

PAC 30-130B
MIRAGE

PAC-30-130B
$\$359^{95}$
Suggested Retail

Commercial Amplifiers are available for 150-174, 450-470 MHz and VHF marine bands, 70-100 Watts out. Most feature over-temperature sensing that bypasses amplifier when safe operating temperatures are exceeded; heavy duty heatsinks finned on 3 sides; and wide input power range. These amps were designed for two-way radio signal commercial, mobile, or fixed location use. All are FCC type accepted.

MIRAGE Commercial Amplifier Specifications

Model	Price	Input	Output	Preamp	Range
B34GC	$159.95	.5-3 W	10-30 W	Yes	150-162
Pac1070B	$299.95	10-30 W	5-70 W	No	150-174
Pac15100C	$429.95	5-25 W	5-100 W	No	450-475
Pac30130B	$359.95	10-30 W	1-100W	No	150-174

Mirage 2-Meter/440 MHz Amplifiers for HTs!

Boost your dual band HT to 45 Watts on 2 Meters or 35 W on 440 MHz!

DUAL BAND LINEAR AMPLIFIER
MIRAGE
BD-35 144/440 MHz Amplifier
POWER

BD-35
\$19995

Suggested Retail

D*STAR Compatible!

- **45 Watts Output on 2 Meters • 35 Watts output on 440 MHz**
- ***New! D*STAR COMPATIBLE!***
- **Reverse Polarity Protection**
- ***Free Mobile Bracket Included***
- **Works with all major brand Handhelds up to 8 Watts**
- **Auto RF sense T/R switch**

Add this MIRAGE BD-35 dual band amp and boost your handheld to a much more powerful mobile or base -- 45 Watts on 2 Meters or 35 Watts on 440 MHz! Get 35 Watts out with just 4 Watts in! ***BD-35 is now D-STAR compatible!***

MIRAGE's exclusive *FullDuplex Amp*™ lets you talk on a band and listen on another band at the same time -- just like a phone conversation (requires compatible HT).

Features auto band selection, reverse polarity protection, on-air leds, single connector for dual band radios/antennas, free mobile bracket and more!

Works with HTs to 7 Watts. Super compact 5Wx1$^1/_2$Hx5D inches. Draws 7 Amps at 13.8 VDC.

***Power Curve** -- typical Mirage BD-35 output power*

***Watts Out** (2 meters)*	10	18	30	40	45	45	45	45+	45+	45+
***Watts Out** (440 MHz)*	4	10	16	26	32	35	35	35+	35+	35+
Watts In	.25	0.5	1	2	3	4	5	6	7	8

MIRAGE 2-Meter Amplifiers for HTs

MIRAGE
B-34
MIRAGE
B-34-G
144-148 MHz
2-Meter Power Amplifier with GaAsFET Pre-amp

B-34-G
\$12995
Suggested Retail

B-34
\$10995
Suggested Retail

Add this MIRAGE amp to your 2 Meter handheld and get 35 Watts output . . . talk further, longer, clearer . . . *It's the best HT amplifier \$129.95 can buy!*

Here's why:

First-class strip-line techniques and modular construction gives superb RF performance and unsurpassed reliablity . . .

Custom wrap around heatsink provides excellent heat distribution -- runs cool for extra long life. Reverse polarity protection can save your amp and your pride if you connect power backward . . .

Automatic RF sense transmit/ receive switch makes operation super easy. Low input SWR keeps your handheld safe from overheating. Individual pushbutton switches lets you select FM/SSB operation, receive preamp on/off and power on/off.

LEDs show On-Air, receive preamp on and power on. 5$^1/_4$x1$^3/_4$x4$^3/_4$". Free mobile mount bracket, hardware.

B-34, \$109.95. Like B-34-G but FM only, less preamp, mobile bracket. Super tiny 3$^1/_8$x1$^3/_4$x4$^1/_4$ inches.

***Power Curve** -- typical Mirage B-34-G amplifier output power*

B-34-G Watts Out	8	12	18	30	33	35	35	35	35	35
B-34-G Watts In	.25	0.5	1	2	3	4	5	6	7	8

B-310-G . . . 100 W on 2 Meters

Reach distant repeaters . . .
Log onto faraway packet bulletin boards . . .

VHF LINEAR AMPLIFIER
MIRAGE
B-310-G
144-148 MHz
2-Meter Power Amplifier with GaAsFET Pre-amp
POWER

B-310-G
\$24995
Suggested Retail

This rugged Mirage B-310-G amplifier operates all modes: FM, SSB and CW. It's the perfect match for all HTs up to 8 Watts and multi-mode SSB/CW/FM 2 Meter rigs.

Built-in low noise GaAsFET receive preamp gives you 15 dB gain -- lets you dig out weak signals. SWR and Reverse Polarity Protection.

Mirage's integrated *HeatsinkCabinet*™ and whisper quiet fan gets heat out fast!

The results?

An ultra-compact 4$^3/_4$x1$^3/_4$x7$^3/_4$ inch 2$^1/_2$ pound amplifier that delivers a super powerful 100 Watts.

Free 3 foot handheld to B-310-G coax cable and mobile bracket!

Automatic RF sense Transmit/Receive switch. Remote keying jack. LEDs monitor "On-Air", high SWR, pre-amp, power.

Push buttons select SSB/FM, pre-amp, power. Draws 15 Amps at 12-15 VDC.

Full one year MIRAGE warranty

With MIRAGE's legendary ruggedness, you may never need our superb warranty.

***Power Curve** -- typical Mirage B-310-G amplifier output power*

B-310-G Watts Out	25	50	75	95	100	100	100	100+	100+	100+
B-310-G Watts In	.25	0.5	1	2	3	4	5	6	7	8

MIRAGE B-320G . . . *200 Watts on 2 Meters with HT or Transceiver!*

Add this amp to your 2 Meter HT or mobile radio and get 200 Watts brutal output. Talk further, longer, clearer!

Has 15 dB GaAsFET preamp, works all modes FM/SSB/ CW. Fully protected by high SWR protection. Includes mobile mounting bracket. An input level switch selects proper input power from your HT or mobile radio. Low power input for hand-held radios, 250 mW to 10 Watts. 1/4 Watts in gives 132 Watts output. 3 Watts input from your HT gives full power output.

High power input for mobile radios, 10 Watts to 50 Watts. 10 Watts input gives 95 Watts output. 50 Watts input gives full power output.

***Power Curve** -- typical B-320-G output power*

Watts Out Mobile Amp	1.5	4	32	95	165	186	193	200
Watts Out HT Amp	132	165	200	--	--	--	--	--
Watts In	.25	0.5	3	10	25	35	40	50

B-320-G
\$49995
Suggested Retail

Custom wrap-around heatsink gives excellent heat dissipation.

Superb Mirage Warranty.

SMA/BNC Cables/Adaptors

Release strain on your HT's antenna connector! Choose SMA or BNC. Flexible, mini coax, 3 feet.

A. MFJ-5612S, \$14.95. SMA Male to SO-239 adapter cable.
B. MFJ-5612SF, \$14.95. SMA Female to SO239 for Wouxun/Baofeng.
C. MFJ-5612B, \$14.95. BNC Male to SO-239 adapter cable.

MFJ-7716, \$4.95 each. SMA female to BNC male adaptor.

MFJ-7718, \$4.95 each. SMA male to BNC female adaptor.

MFJ-7719, \$4.95 each SMA male to SO-239 adaptor.

MIRAGE HF/VHF/UHF PREAMPLIFIERS

KP-1
$149.95
Suggested Retail

MIRAGE
COMMUNICATIONS EQUIPMENT
KP-1/440
POWER
ON
PWR
OFF

High gain ultra low noise GaAsFET preamps for receiving weak signals. Select-able gain prevents receiver intermod. 15-22 dB gain. Auto RF switching to 160W. Choose In-shack (details below) or Mast-Mount models (right).

MODEL KP-1
A. KP-1/10M
B. KP-1/6M
C. KP-1/2M
D. KP-1/220MHz
E. KP-1/440MHz

***In-Shack* Model Features:**
- Automatic RF Switching
- GaAsFET boosts weak receive signals
- In-Line design for easy operation
- High or Low switchable gain setting

FREQUENCY
A. 28-30 MHz
B. 50-54 MHz
C. 144-148 MHz
D. 220-225 MHz
E. 430-450 MHz

KP-1 *In-Shack* Model Features:
- Gain: from 15 dB to greater than 25 dB
- Noise: less than 1 dB
- Power Handling: 100 Watts
- Size: 4¼Wx2 5/16Hx1 3/16D inches

KP-2
$199.95
Suggested Retail

MIRAGE
KP-2 Outdoor Box
ANTENNA
CONTROL BOX
MIRAGE
KP-2 Control Box
POWER

MODEL KP-2
A. KP-2/10M
B. KP-2/6M
C. KP-2/2M
D. KP-2/220MHz
E. KP-2/440MHz

***Mast Mount* Model Features:**
- Automatic RF Switching
- GaAsFET boosts weak receive signals
- Mast Mounted design to reduce loss
- In-Line design for easy operation
- High or Low switchable gain setting

FREQUENCY
A. 28-30 MHz
B. 50-54 MHz
C. 144-148 MHz
D. 220-225 MHz
E. 430-450 MHz

KP-2 *Mast Mount* Model Features:
- Gain: from 15 dB to greater than 25 dB
- Noise: less than 1 dB
- Power Handling: 100 Watts
- Voltage: 12-15 VDC
- Size: 4¼Wx2 5/16Hx1 3/16D inches

MIRAGE VHF/UHF Repeater Amplifiers

Dedicated Repeater Amplifiers for Continuous Duty Service

10 models to choose from -- continuous duty all mode FM/SSB/CW repeater amplifiers for 6, 2, 450 MHz, and ATV service.

50, 144 and 220 MHz Models
FEATURES:

Cool Running - A 10" high by 19" wide full finned rack-mounted heatsink keeps the transistor temperatures low for long life. Chassis cover is perforated so air convection will keep the circuit board area cool.

Dual Protection - The amplifiers have two temperature sensors; one on the heatsink and one on the circuit board. If conditions cause either to overheat, the amplifier will shut off until it cools down to a safe temperature.

Bypass Mode - These models will feed the exciter output straight through to the antenna in an over-temperature condition.

The bypass mode can also be remotely selected by proper interfacing to the repeater controller. Either a relay contact or a TTL logic can be used to select the bypass mode or amplified mode of operation.

Reduced Relay Wear - The amps have a selectable long release time (adjustable up to 5 seconds) for the RF change-over relay. This prevents unnecessary action during repeater operation.

On-site Control - The bypass mode and relay release time can be selected with built-in switches. The operational MIRAGE RC-1 remote control box can be used to switch these functions up to 18 feet away from the amplifier.

440 MHz and ATV Models
FEATURES

Cool Running - A 10" high by 19" wide full finned rack-mounted heatsink keeps the transistor temperatures low for long life. The chassis cover is perforated so air convection will keep the circuit board area cool. The RF board is low loss *Teflon*^{R} for minimum dielectric heating.

Reliable - The RF change-over relay has been eliminated on this model to provide the highest order of reliability.

Teflon^{R} connectors are standard on this well-designed unit.

Protection - The amplifier will shut off if conditions cause the heatsink temperature to rise to an unsafe level of operation.

All Mode Operation - Class AB linear operation is rated for FM, SSB, CW and ATV operation.

1 YEAR WARRANTY ON ALL REPEATER AMPLIFIERS

Warranty - Mirage repeater amplifiers are guaranteed for one year against failure due to defective workmanship or materials.

MIRAGE Repeater Amp Specifications

Model#	Price	Input	Max Out	MHz
A-1015-R	$579.95	.25-5 W	98 W	50-52
B-1018-R	$659.95	.25-3 W	130 W	145-148
B-2518-R	$629.95	.5-10 W	111 W	145-148
D-1010-NR	$719.95	.25-4 W	80 W	440-450
D-3010-NR	$689.95	1-15 W	75 W	440-450
D-100-ATVN-R	$689.95	.25-1 W	52 W	420-450
D-1010-ATVN-R	$689.95	.25-4 W	80 W	420-450

Vectronics 2 kW *Roller Inductor* Antenna Tuner

HFT-1500
$\$479^{95}$
Ship Code D

VECTRONICS
LAMP
RANGE
LEVEL
DELAY
INDUCTOR
Peak Forward Power
DIRECT
TUNED
COAX 2
COAX 1
BYPASS
WIRE/BAL
ANTENNA
TRANSMITTER
Model HFT1500 Digital Peak Reading Antenna Tuner

The Vectronics HFT-1500 Roller Inductor Tuner has three continuously variable components -- two 4.5 kV capacitors and a roller inductor controlled by a precision crafted crank handle and a gear driven 5-digit counter.

Tune ANY Real Antenna!

The HFT-1500 will tune ANY real antenna . . . verticals, dipoles, inverted vees, beams, long wires, SWL antennas . . . ANYTHING! And its huge components make the tuning ARC-FREE!

You can tune your SWR down to the absolute minimum from 1.8 to 30 MHz, including MARS and the WARC bands. Handles 2 kW SSB PEP amplifier input power.

21-Segment Bargraph for SSB Power

The bargraph is a 21 segment display that makes analyzing SSB power amazingly easy. This LED meter shows your peak reading and has fully adjustable level and delay controls.

A lighted dual movement *D'Arsonval* Cross-Needle SWR/Wattmeter displays SWR, forward and reflected power simultaneously at a glance. RF directional coupler is fully shielded for even greater accuracy.

The meter measures peak and average power in the 300/3000 Watt scales. Bargraph display and meter lamp require 12 VDC adapter, included.

Antenna selector switch is a 6-position ceramic. Coax 1 is for tuned and tuner bypass; Coax 2 is for tuned and tuner bypass, bypass and balanced antenna.

The HFT-1500 measures 5.5Hx12W x12.5D inches and is housed in a beautiful RF-tight aluminum cabinet. Weighs 10 lbs.

VC-300DLP . . . World's most versatile HF Antenna Tuner

MODEL VC300DLP
Antenna Tuner
OUTPUT SELECT
TRANSMITTER
ANTENNA
INDUCTOR
VCI
VECTRONICS
RANGE
LAMP

Get everything you've ever wanted . . . precise inductance control that rivals roller inductors and the ability to match any *real* antenna!

VC-300DLP gives you full 1.8-30 MHz coverage, peak reading backlit Cross-Needle Meter, 8 pos. antenna switch, built-in 50 Ohm dummy load, finest components and world class quality.

VECTRONICS' exclusive *Multi48*™ inductor gives you forty-eight inductance values -- you'll get precision tuning that rivals the most expensive roller inductors.

Tune *any* real antenna 1.8-30 MHz, including all MARS/WARC bands. Verticals, dipoles, yagis, quads, long-wires, G5RVs...

VC-300DLP
$\$179^{95}$
Ship Code B

Has 4:1 balun for balanced line antennas. Handles up to 300 Watts SSB PEP, 200W continuous (150W, 1.8 MHz).

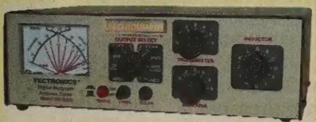
A backlit Cross-Needle Meter displays SWR, forward and reflected power simultaneously. Reads both peak and average power on 30/300 Watt scales. Lamp has front panel switch and uses 12 VDC or 110 VAC with optional **AC-12 $15.95.**

An 8-position antenna switch selects 2 coax fed antennas, random wire/balanced line or built-in dummy load for use through your tuner or direct to your transceiver. Bypass position keeps your Cross-Needle SWR meter in line.

Use the built-in dummy load for testing and repairing your rig, setting power level, adjusting your mic gain and more.

Chemically treated aluminum case has durable baked-on paint and scratch-proof color Lexan front panel. Measures a compact 10Wx9.5Dx3.5H inches.

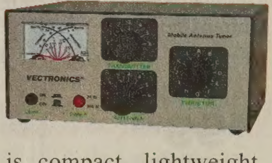
VECTRONICS *Deluxe 300 Watt* Antenna Tuner *with 21 Segment SSB Bargraph*



VC-300D, $219.95. Similar to VEC-300DLP, but has 21-segment bargraph display that makes analyzing SSB power amazingly easy. LED meter shows peak reading and has fully adjustable level and delay controls.

Vectronics 300 Watt Mobile Tuner

VC-300M
$\$129^{95}$
Ship Code B



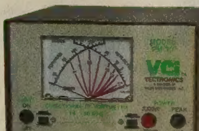
The VC-300M *Mobile* AntennaTuner is compact, lightweight, easy-to-operate and is our most economical tuner. It's compatible with any mobile antenna and any mobile HF transceiver and is small enough to fit the most compact car.

Use at your home base station with dipoles, vees, verticals, beams or quads fed by coax. Backlit dual movement meter simultaneously monitors power and SWR.

Covers 18 to 30 MHz. Handles 300 Watts SSB PEP, 200 Watts continuous, (150 Watts on 1.8 MHz).

Measures 7.25Wx8.75Dx3.6H inches. Weighs just 3.4 pounds.

VECTRONICS SWR/Power Meters



PM-30, $89.95.

For 1.8 to 60 MHz. Displays forward and reflected power and SWR simultaneously on dual movement Cross-Needle Meter. True shielded directional coupler assures accuracy. Backlit meter displays peak or average power in 300/3000W ranges. Measures a compact 5.3x5.75x3.5 inches. Has quality SO-239 connectors.

VECTRONICS

PM-30UV, $99.95.

For 144, 220 and 440 MHz ranges. **Covers** 144/220/440 MHz. Has 30 and 300 Watt ranges. Quality SO-239 connectors.

PM-30UVN, $99.95.

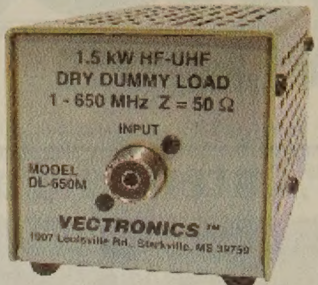
Similar to PM-30UV but has Type N antenna connector.

PM-30UVB, $99.95.

Similar to PM-30UVN but has BNC antenna connector.

VECTRONICS HF/VHF/UHF Dry Dummy Loads

1500 Watts HF/VHF/UHF Dry Dummy Load

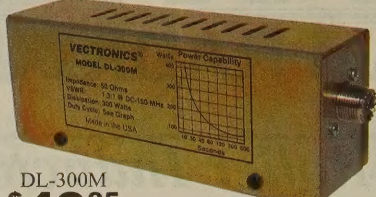

1.5 kW HF-UHF
DRY DUMMY LOAD
1 - 650 MHz Z = 50 Ω
INPUT
MODEL DL-650M
VECTRONICS ™
1007 Lockeville Rd., Starkville, MS 39759

DL-650M, $79.95. Handles 100 Watts continuous, 1500 Watts for 10 seconds to 650 MHz. Ceramic resistor. SWR lower than 1.3:1. Has SO-239 Connector.

DL-650M
$79.95
Ship Code A

DL-650MN, $84.95. Like DL-650M but has N-type connector.

300 Watts Dry Dummy Loads

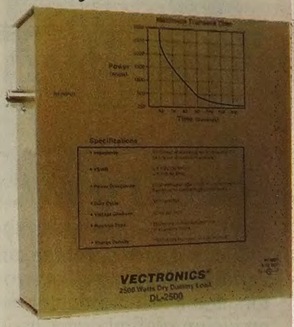

VECTRONICS
MODEL DL-300M
Watts Power Capability
Seconds
Made in the USA

DL-300M
$49.95
Ship Code A

DL-300M, $49.95. Handles full 300 Watts for thirty seconds. Air-cooled, non-inductive resistor in a perforated metal housing. Has SO-239 connector. Silk-screened derating curve. SWR below 1.1:1 to 30 MHz.

DL-300MN, $54.95. Like DL-300M but with N connector.

2500 Watts Fan-cooled Dry Dummy Load


VECTRONICS
2500 Watts Dry Dummy Load
DL-2500

DL-2500, $219.95. 2500 Watts dry dummy load is fan cooled. DC to 150 MHz. Can dissipate 2500 Watts average power for one minute on, ten minutes off. Detailed power curve.

DL-2500
$219.95
Ship Code B

DL-2500N, $229.95 with N connector.

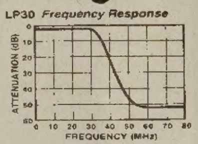
VECTRONICS Low Pass TVI Filters

1500 Watts Low Pass TVI Filter

LP-30
$89.95
Ship Code A

VECTRONICS
LOW PASS FILTER
OUTPUT
Model LP-30
STARKVILLE, MS USA

Use between Transmitter and Antenna or Tuner. Reduces TV interference (TVI) radiated by transmitters operating below 30 MHz. Suppresses harmonics appearing in the TV bands. Additional attenuation to TV IF frequencies above 40 MHz. Low loss to 30 MHz. 9-pole inverse Chebyshev design.



SPECIFICATIONS:

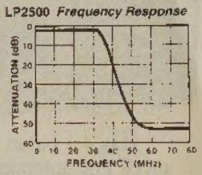
Passband: 0-30 MHz **Cutoff freq:** 35 MHz **Attenuation:** 42.17 MHz (Color IF), -70 dB 45.75 MHz (Video IF), -70 dB 52.25 MHz (Channel 2 Video), -60 dB; Worst case at 65 MHz, -60 dB **Power Capacity:**1500 W Key Down - 50% Duty **Impedance:** 52 Ohms **Insertion Loss:** 0.25 dB @ 30 MHz **VSWR:** Less than 1.5:1 **Dimensions:** 8.75Wx3Dx2.75H inches.

2500 Watts LowPass TVI Filter

LP-2500 LOW PASS FILTER
VECTRONICS, 300 Industrial Park Road, Starkville, MS USA

Use between your Transmitter and Antenna or Tuner. Reduces TV interference (TVI) radiated by transmitters operating below 30 MHz. Suppresses harmonics appearing in the TV bands. Additional attenuation to TV IF frequencies above 40 MHz. Low loss to 30 MHz. 9-pole inverse Chebyshev.

LP-2500
$139.95
Ship Code A



SPECIFICATIONS:

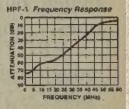
Passband: 0-30 MHz; **Cutoff freq:** 35 MHz; **Attenuation:** 52.25 MHz (Channel 2 Video), -60 dB; Worst case at 65 MHz, -60 dB **Power Capacity:** 2500 W Key Down - 50% Duty **Impedance:** 52 Ohms; **Insertion Loss:** 0.25 dB @ 30 MHz; **VSWR:** Less than 1.5:1; **Dimensions:** 9.5Wx4.25Dx2.38H in. **Weight:** 2.5 lbs.

High Pass TVI Filters

VECTRONICS
High Pass Filter
HPF-1

HPF-1
$29.95
Ship Code A

Installs between VCR and TV and cable TV or antenna lead-in cable. Eliminates or reduces interference caused by nearby HF transmitters operating below 30 MHz. Low loss in the TV passband 52-550 MHz. Unique shield breaking circuit prevents cable from acting like an antenna. ***SPECIFICATIONS:*** **Passband:** 52-550 MHz; **Cutoff Freq:** 50 MHz; **Attenuation:** More than -60dB at 10 MHz; More than -55 dB at 20 MHz; More than -40 dB at 30 MHz **Impedance:** 75 Ohms; **Insertion Loss:** Less than 0.5 dB @ 52-550 MHz; **Connectors:** CATV (Type F) 75 **Dimensions:** 3.25Wx1.5Dx2H inches.



HPF-2 Deluxe High Pass Filter

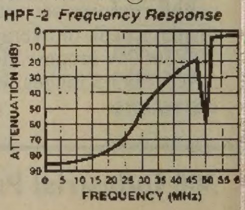
VECTRONICS
High Pass TVI Filter
HPF-2
Made in USA

Use between Cable and VCR/TV set. Reduces TV interference (TVI) from nearby radio transmitters (like broadcast, commercial, two-way, amateur, and CB below 30 MHz. Unique common-mode rejection (RF current on the shield of coax cable) using a toroid ferrite core.

HPF-2
$34.95
Ship Code A

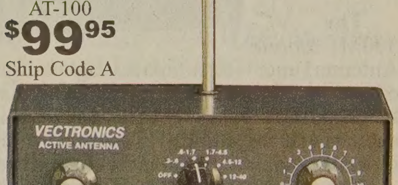
SPECIFICATIONS:

Passband: 52-550 MHz;
Cutoff Freq: 50 MHz
Attenuation: More than 80dB: 1-14 MHz;
More than 70 dB: 14-25 MHz;
More than 50 dB: 25-30 MHz
Impedance: 75 Ohms;
Insertion Loss: Less than 0.25 dB @ 52-550 MHz;
Connectors: CATV (Type F)
Dimensions: 3.625Wx1.12Dx2H inches.



Tuned Active SWL Antenna

AT-100
$99.95
Ship Code A

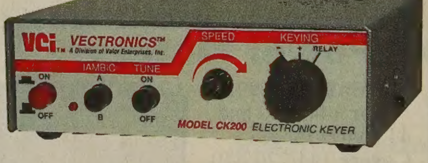

VECTRONICS
ACTIVE ANTENNA
GAIN
ON
OFF
BYPASS
BAND
PEAK - TUNE
MODEL AT-100

AT-100, $99.95.

This portable compact antenna is perfect for indoor use by itself or with an external antenna.

Tunes from 300 KHz to 30 MHz including VLF, AM broadcast, all shortwave and ham radio bands. Great for SWL!

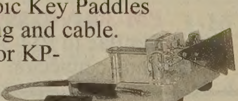
Deluxe Iambic CW Keyer


VCi
VECTRONICS™
A Division of Valor Enterprises, Inc.
SPEED
KEYING
RELAY
IAMBIC
TUNE
ON
OFF
A
B
MODEL CK200 ELECTRONIC KEYER

CK-200, $99.95. Speed, weight, tone, volume controls, tune, iambic A/B switch,3 types of keying output, speed control 6-50 wpm, self-complete dots/dashes. Use 9V battery/110 VAC.

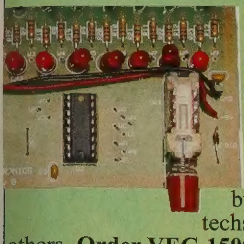
Deluxe Iambic CW Paddle

KP-200, $79.95. Iambic Key Paddles complete with 1/4" plug and cable. KP-200, chrome base or KP-200B, black base.



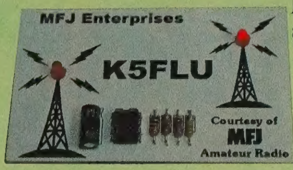
Vectronics high-performance electronic kits . . . fun to build and use!

Comprehensive Soldering Course Kit.

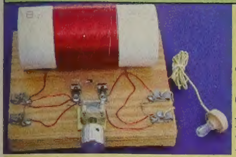


Designed for schools and individuals. Includes theory, quizzes, PC board and components for soldering practice. Used & endorsed by universities, vo-techs, businesses and others. **Order VEC-1500K, $29.95.**

Blinking Tower LED Electronic Badge Kit. *Be proud of who you are!*



Listed in the boy scout badge handbook, this is a great evening project for your boy scout troop and a great way to introduce them to ham radio and basic electronics. **Order VEC-5100K, $12.95.**

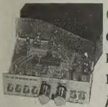


Old-Fashioned Crystal radio set Kit

Relive the experience of early radio pioneers!

This baby really works! Wind your own inductor, wire up the earliest radio circuit without soldering a thing and listen to the magic of radio that needs no power. Put up an antenna, connect ground. Stations come in amazingly loud and clear. 1¾x5x6½". Has antenna wire, earphone. Great boy or girl scout lesson, school project or fun grandchild weekend!!! *Simple level.* Order **VEC-121K, $24.95.**

Full featured CW Keyer Kit is the best bargain in radio! Self-completing dot-dashes and dot-dash memory forgive timing errors. Front volume, speed (3-65 wpm) controls. Weight adjusts 25-75%. Sidetone (300 -1000Hz). LM386 audio amp for ext. speaker. Iambic A/B, fully auto or semi-auto *"bug"* mode. Sleep Mode battery saver. Use 9V. 1¾x4x 3½". *Simple level.* Order **VEC-201K, $24.95.**

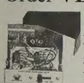


CW Memory Keyer Kit stores 512 characters in four 128 character non-volatile EEPROM message memories. *Carry on entire QSOs by just pressing memory message buttons.* True sinewave sidetone with soft rise and fall time eliminates harsh keyclicks. Has all features of VEC-201K CW Keyer Kit. 1¾x 6¾ x5¼ in. *Simple.* Order **VEC-221K, $69.95.**

Tunable SSB/CW Audio Filter Kit has sharp *four* pole peak and notch filters. Zero in with frequency control & adjust bandwidth for best response. Tune frequency from 300-3000 Hz. Notch is an outstanding 50 dB. 1 Watt amplifier. Speaker/Phone jacks. 12 VDC at 300 mA. 1¾x4¾x5¼ in. *Intermediate skill level.* **VEC-841K, $34.95.**

Super CW Audio Filter Kit gives you three bandwidths: 80, 110, 180 Hz. Eight poles gives super steep skirts with no ringing. Pull CW QSOs out of terrible QRM! Plugs into phone jack to drive phones. QRM down 60 dB one octave from center frequency (750 Hz) for 80 Hz bandwidth. Improves S/N ratio 15 dB. Use 9V battery. 1¾x4x 3½ in. *Simple.* **VEC-820K, $19.95.**

Super CW filter/ amplifier Kit has powerful 1 watt audio amplifier to drive speaker. 8 poles active IC filtering uses cascaded low-Q stages. 3 bandwidths: 80,110, 180 Hz. Center frequency: 750 Hz. Up to 15 dB. Use 9-18VDC, 300 mA max. 1¾x4 x3½ in. *Simple skill level.* Order **VEC-821K, $29.95.**



Super SSB Audio Filter Kit improves readability with 8 poles, optimizes audio bandwidth, reduces SSB splatter, low, hi-pitched interference, hiss, static crashes, background noise. Use 9 Volt battery. 1¾x4x 3½ inches. *Simple skill level.* Order **VEC-830K, $19.95.**

Ni-Cad/Ni-MH Battery Charger Kit safely quick charges expensive batteries -- no overcharging -- many in less than an hour. HTs, cell phones, camcorders, lap top. 1¾x4¾x5¼ in. *Moderate.* **VEC-412K, $49.95.**

Portable CD/MP3 Amp Kit has 4 Watt per channel amplifier. Plug in a portable CD player and a pair of 8 Ohm speakers.Fill your room with music. 12V battery/12 VDC. *Simple.* **VEC-1604K, $19.95.**

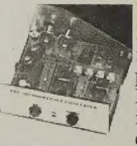
Cases available for most kits listed above, $14.95. Add "C". **Example: VEC-201KC, $14.95.**

SCA Decoder Kit lets you discover interesting programming hidden in many standard FM broadcast signals. Commercial-free background music, all news programs, weather reports, stock quotes, digital data, ethnic programs, reading services for the blind, etc. Tune entire SCA band from 50 to 100 KHz. Connect 422K to detector output of your FM receiver. 1¾x6½x5". *Simple level.* **VEC-422K, $27.95.**

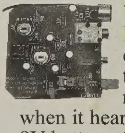
Aircraft Receiver Kit tunes entire voice aircraft band 118-136 MHz -- air traffic 100 miles away. Track incoming/outgoing traffic in your area, advanced weather information, discover how National Air Traffic System works. Great way to learn about aviation. Use 9V battery. Drives external speaker/phones. 1¾x4x3½ in. *Intermediate.* **VEC-131K, $29.95.**

Shortwave Converter Kit converts AM or AM/FM radios to shortwave receivers at a push of a button. Choose 2 1 MHz bands between 3 and 22 MHz. Popular 13,16,19, 25, 31, 41, 49 and 60 Meters international bands. On/off bypass, NE-602/612 mixer-oscillator IC and tuned input circuit. 9 V battery. 1¾x4x3½". *Intermediate.* **VEC-101K, $27.95.**

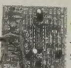
49 MHz Wireless Band Monitor Receiver kit lets you explore weak wireless signals from miles around. Baby monitors, cordless phones, walkie-talkies, wireless intercoms and more! Electronic tuning covers just the 49 MHz band. *Intermediate skill level.* **Order VEC-1016K, $34.95.**



Emergency and Business Band Receiver lets you gather news first hand -- tune in local fire, police, ambulance, business, etc. Master 2-way radio lingo, operating procedures and police 10-codes as you find the "real story"! 9V battery. *Intermediate.* **VEC-1012K, $34.95.**



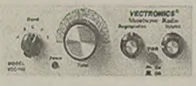
Voice Activated Recorder Switch Kit can remotely and auto record conversations, speeches. Don't waste tape by not recording silence. Plug in remote recorder jack and it activates when it hears speech. Built-in mic, on/off. Use 9V battery. *Simple.* **VEC-483K, $19.95.**



Counter Surveillance Monitor Kit lets you search out and remove electronic bugs! Highly sensitive wideband receiver detector. Higher pitch audio occurs when bug is near. 9 V batt. *Moderate.* **VEC-8218K, $39.95.**

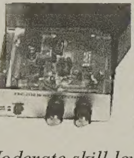
The GIANT Book of Electronic Projects,
Volume I

The Giant Book of Electronic Projects VEC-1901, $19.95. Includes 19 kits on this page. Building tips, complete parts lists, parts placement,PC board layouts, test/alignment, more.



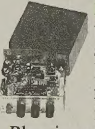
Shortwave Receiver Kit lets you listen to the world! Covers 75/80, 49, 40, 30, 31, 20, 25, 22, 19, 17, 16, 15 and 13 Meter bands. Explore AM, SSB, CW, WWV, RTTY and Packet signals. Vernier reduction drive, smooth regeneration control, RF stage. *Includes all metal cabinet.* 2 earphone jacks. Use 9V battery. 2½x7x6 in. *Intermediate skill level.* Order **VEC-102K, $79.95.**

QRP Transceiver Kits for 80/40/30/20 Meters give you VXO frequency control, broad-banded transmitter circuitry, solid one Watt plus output, shaped keying, .3 uV sensitivity, direct conversion receiver. Includes crystal for popular QRP frequency. 1¾x 4¾ x5¼". *Intermediate skill level.* Order **VEC-1380K** (80 Meters),**VEC-1340K**(40 Meters),**VEC-1330K** (30 Meters),**VEC-1320K**(20 Meters), **$59.95 each.**

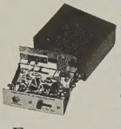


20/30/40/80 Meter Receiver Kits give high performance! Covers entire band or tailor to cover desired portion. Copy CW/SSB/AM. NE602/ 612 mixer-oscillator, LM386 high gain audio amplifier. 1¾x4¾x 5¼ in. *Moderate skill level.* Order **VEC-1120K** (20 Meters),**VEC-1130K**(30 Meters),**VEC-1140K** (40 Meters), **VEC-1180K** (80 Meters), **$29.95 ea.**

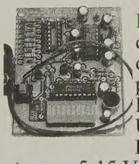
20/30/40/80 Meter QRP CW transmitter Kits have variable crystal oscillator tuning, front panel switch selects 1 of 2 crystals. 1 crystal included. Transmit and Receive switch. Connect receiver. 1¾x4x3½ in. *Intermediate skill level.* Order **VEC-1220K** (20 Meters), **VEC-1230K** (30 Meters), **VEC-1240K** (40 Meters), **VEC-1280K** (80 Meters), **$29.95 each.**



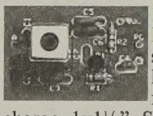
2/6/10 Meter FM Receiver Kits let you tune in the world of amateur radio repeater action with these superb educational kits. Each covers the entire FM sub-band and runs off your 9V battery. Experience what it's like for ham radio operators in your area. Plug in speaker or headphones for clear reception. 1¾x4x3½". *Intermediate.* **VEC-1002K** (2 Meters), **VEC-1006K** (6M), **VEC-1010K** (10M), **$34.95 each.**



AM Radio Transmitter Kit lets you set up your own AM station and broadcast crystal clear programming from your studio with *you* as the disc jockey. Choose clear frequency from 530-1750 KHz. Standard line level or microphone input. Easy connection. Audio level adjustment. 1¾x4x3½ inches. *Simple skill level.* Order **VEC-1290K, $29.95.**

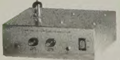


FM Stereo Transmitter Kit lets you connect your MP3/CD player, tape or other source and broadcast clear stereo programming on the FM band! Realistic grand movie theater sound! Use to assist hard-of-hearing. Frequency adjusts 88-108 MHz. 9V battery or 5-15 VDC. *Moderate.* **VEC-1292K, $39.95.**



144/220/440 MHz Low-Noise Preamp Kits soup up your antenna system, pull in weak signals. Great low-noise performance, immunity from damaging electrostatic discharge. 1x1½". *Simple.* **VEC-1402K** (144 MHz), **VEC-1422K** (220 MHz), **VEC-1444K** (440 MHz), **$17.95.**

High-performance 2 Meter Preamp Kit pulls weak signals out of noise. Boosts signals, provides razor-sharp bandpass filtering, eliminates electrical noises w/built-in balun. 9-14 VDC. 1½x3x1". *Intermediate.***VEC-1402DK, $59.95.**



Vacuum-Tube Preamplifier Kit lets you enjoy the vintage sound of a real life vacuum tube preamp. High degree of even-harmonic distortion. Includes tube, 110 VAC power supply. *Moderate.* **VEC-1680K, $99.95.**

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ALS-1306 reliability is insured by using *eight rugged MRF-150 power FETs*. They are mounted on the dual heavy duty heat sink and properly arranged to spread out the heat over a large surface. This is something that other amplifiers using a single power device cannot do. *Some* FETs actually are a package of several transistors in one large case. This concentrates all of the heat in one small package. They not only are more difficult to cool, if one transistor fails, they all have to be replaced.

The ALS-1306 RF deck operates at 50 Volts for efficient, low distortion linear RF power service. It's cooled by a whisper quiet cooling fan. Fan speed is regulated by temperature sensors, assuring minimum noise for adequate cooling.

1200 Watts SSB Output Power Covers 1.5-54 MHz (HF+ 6 Meters!)

ALS-1306 runs up to 1200 Watts of clean SSB output power (just 100 Watts drive gives you the full rated 1200 Watts output) for continuous coverage between 1.5-54 MHz. 10/12 Meters is already included.

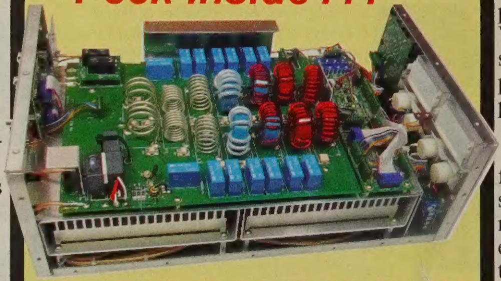
Operator-friendly layout fits nearly any station configuration. The attractive desktop amplifier unit weighs only 22 pounds. Compact 10Wx6½Hx18½D inches.

SWR Protection prevents amplifier damage if you switch to a wrong band, use the wrong antenna or have a high SWR. Over-power protection enables if output forward power or reflected power exceeds a safe level.

Output power is automatically reduced to prevent amplifier damage by controlling ALC to exciter.

LED-illuminated Cross-Needle SWR/Wattmeter lets you read SWR, forward and reflected *peak* power simultaneously. You also get ALC, SWR, PA balance and current metering with LED backlight. An Operate/ Standby switch lets you run "barefoot", but you can *instantly* switch to full power if needed.

Peek Inside . . .



Be prepared to be amazed at the beautiful workmanship of this finely crafted piece of electronic art! It's another beautiful, yet powerful Ameritron Amplifier!

Front-panel ALC control!

This exclusive Ameritron feature lets you adjust output power on the convenient front panel display. You get front panel operation, band and error LED indicators like reflected power and bandswitch errors.

Automatic Bandswitching!

Put your amplifier and power supply out-of-the-way! Control your amplifier directly from your rig!

ALS-1306 automatic band switching capability reads band data from your transceiver and automatically changes bands as you make adjustments on your transceiver. An optional interface cable is required for your particular radio.

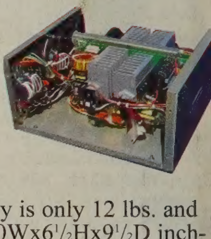
ALS-1306 Transceiver Interface Cables

DB-13D	**Icom IC-706/7000/718 & others w/13P din**	
DB-7DI	**Icom with ACC2 7-pin din**	$24.95 Each
DB-DB7DK	**Kenwood with DB9 except 480**	
DB-DB8MK	**Kenwood TS-480**	
DB-8MY2	**Yaesu FT-897/857/100/817/840/890/990**	
DB-8DY	**Yaesu with standard 8 din Band data**	
DB-10MY	**Yaesu FT-450/950/1200**	
DB-DB15Y	**Yaesu FT-DX-3000**	
DB-DB15HE	**Elecraft (BCD)**	

Clean, Modular Construction

Unlike other solid state amplifier designs that are packed so tightly they are un-serviceable, Ameritron's ALS-1306 amplifier construction is super-clean with *easy-service* modular construction.

ALS-1306 Power Supply



The ALS-1306 is powered by a 50 VDC switching power supply. Comes with a pre-wired cable to plug into the ALS-1306.

This *hash-free* fully regulated swtiching power supply is only 12 lbs. and measures a compact 10Wx6½Hx9½D inches. It can be placed conveniently out-of-the-way at your operating station. Output is 50 VDC at 50 Amps to the ALS-1306. Wired for 220 VAC, selectable to 110 VAC. Draws less than 25 Amps at 110 VAC; 12A @220 VAC.

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